SPECIAL NOTICE

WY PRA-GRTE 13(4)–WY PRA GRTE 13(8)-WY PLD GRTE 710(1)
NORTH PARK ROAD PHASE II-NORTH PARK ROAD, SNAKE RIVER BRIDGE –

GRAND TETON PARK PATHWAYS, PHASE I

THIS IS A TASK ORDER REQUEST FOR PROPOSAL SOLELY FOR THE FOLLOWING CONTRACTS AND CONTRACTORS:

Contract Number	Contractor Name	Contractor Number
DTFH70-07-D-00007	HK Contractors Inc.	(208) 523-6600
DTFH70-07-D-00008	Kiewitt Western	(303) 979-9330

THIS PROJECT IS BEING ADVERTISED ON THE FEDERAL BUSINESS OPPORTUNITIES WEBSITE TO ANNOUNCE THE UPCOMING PROJECT AND ASSIST POTENTIAL SUBCONTRACTORS BY PUBLICIZING OPPORTUNITIES. A PROPOSAL WILL **ONLY** BE ACCEPTED FROM THE ABOVE PRIME CONTRACTORS.

Additional information may be found on our web pages:

Construction Projects: http://www.wfl.fhwa.dot.gov/edi/construction.htm
Description: This web page contains links to access upcoming (synopsized) projects, advertised (solicitation) projects, bids and proposals received, awarded projects, awarded IDIQ contracts, bid tabs, and bid history.

Advertised Projects: http://www.wfl.fhwa.dot.gov/edi/current.htm
Description: This web page contains projects that are out for bid with links to the Federal Business Opportunities project page, question submittals, and a link to the project Question and Answers.

Yellowstone/Grand Teton MATOC[1]: CLICK HERE
(http://www.wfl.fhwa.dot.gov/edi/idiq/ygt.htm)
Description: This web page contains the contractors information, a description of the contract and the projects that have been awarded under the contract.

[1] A Multiple Award Task Order Contract (MATOC) is a group of contracts awarded to multiple contractors with a shared scope. The contracts cover multiple projects in a defined region.

YELLOWSTONE/GRAND TETON MATOC
TASK ORDER REQUEST FOR PROPOSAL

Solicitation No. DTFH70-08-R-00008

Proposal Due Date: See page A-3, Block 13A.

WY PRA GRTE 13(4), 13(8) & WY PLD GRTE 710(1)
North Park Road (Phase II), North Park Road (Snake River Bridge) & Grand Teton Park Pathways (Phase I)

QUICK INDEX

PROPOSAL REMINDERS

Electronic proposals will not be accepted. Submit printed copy of your proposal to the address listed on the enclosed SF 1442. Before submitting your proposal, please review the following:

- Have you rechecked your figures?
- Have you completed the schedule?
- Have you completed and signed the SF 1442, Solicitation, Offer & Award?
- Have you acknowledged all amendments?
- Have you completed the Task Order subcontracting plan? (If applicable)
- **Have you marked "Proposal Enclosed for Solicitation No. DTFH70-08-R-00008" in the lower left corner of the submittal envelope?**

Solicitation, Offer & Award, Bid Schedule, Contract Clauses, Minimum Wage Schedule, Special Contract Requirements, and Plans

This solicitation cites

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 – Metric Units

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
610 EAST FIFTH STREET
VANCOUVER, WA 98661-3801
Phone (360) 619-7520 -- FAX (360) 619-7932

Web site: www.wfl.fhwa.dot.gov/edi/
e-mail: contracts@mail.wfl.fhwa.dot.gov

WORLD HERITAGE SITE

PROJECT NAME	**WY PRA GRTE 13(4), 13(8) & WY PLD GRTE 710(1) North Park Road (Phase II), North Park Road (Snake River Bridge) & Grand Teton Park Pathways (Phase I)**

PROJECT TERMINI

BASE
0+280.000 to 0+360.000
0+490.000 to 0+610.000
27+857.000 to 38+330.000

OPTION A
40+775.450 to 41+084.550

OPTION B
39+370.000 to 39.601.000

OPTION C
0+007.402 to 12+687.898

PROJECT LENGTH

BASE
10.67 km

OPTION A
.31 km

OPTION B
.23 km

OPTION C
12.68 km

NATIONAL PARK	**Grand Teton National Park**
COUNTY	**Teton County**
STATE	**Wyoming**
FIXED COMPLETION DATE	**See FAR Clause 52.211-10** (clauses begin on page C-1)

Offer Submittal Checklist

Before submitting your Offer, please review the following:	Done?	Is this in the envelope?
Bid Envelope		
Did I correctly address the envelope? (See page A-3, blocks 7 & 8)		
Does the lower left corner of the envelope include the Solicitation Number and the project name/number?		
Pages A-3 & A-4 (*SF 1442, Solicitation Offer & Award*)		
Did I include our firm name and address in block 14?		
Did I include our firm's phone number in block 15?		
Did I include our firm's remittance address in block 16? (Use when different than block 14)		
Did I include my DUNS number?		
Did I include the number & date of all amendments in block 19?		
Did the appropriate official sign/date in block 20A, 20B & 20C?		
Bid Schedule (see page A-7)		
Did I insert "Unit Bid Price" and "Amount Bid" for each bid item?		
Did the appropriate official initial corrections?		
Did I include the "Total" on the last page of each bid schedule?		
Did I include the firm's name on the last page of each bid schedule?		
When applicable, did I include the totals for each schedule in the summary page? (see last page of bid schedules.)		
Bid Bond (Standard Form 24) **Bids received without a valid bid bond will be rejected.**		
Did I complete my bid bond correctly?		
Did I attach the Power of Attorney to the bid bond?		
Authority to Sign		
Did I include a completed form for each person signing the SF1442 and Bid Bond?		
Representations & Certifications & other fill-ins		
Did I include the completed B-pages (beginning on B-1)?		
Did I include the completed clause *1252.228-73 Notification of Miller Act Payment Bond Protection* (clauses begin on page C-1)?		
Online Representations & Certifications Application (ORCA) http://orca.bpn.gov		
Do we have up-to-date data in ORCA ?		
Central Contractor Registration (CCR) http://www.ccr.gov		
Did I ensure our firm is currently registered in CCR?		
Vets100 Reporting http://vets.dol.gov/vets100/		
Did I ensure our firm has completed this annual report?		

NOTE: The Contractor is fully responsible to verify that all data is correct each time a offer package is submitted. Failure to properly input and/or update your data may cause the offer to be rejected.

(This page intentionally left blank.)

INSTRUCTIONS: When the offeror/principal is a corporation, include this certification with your offer/bid.

Corporate Certificate

I, _____ (name), certify that I am the

_____(title), of the corporation named as

the Offeror/Principal herein;

that _____(name), who signed this

offer and/or bid bond on behalf of _____ (company name) is

_____ (title) of this corporation;

that the offer was duly signed for and on behalf of said corporation by authority and

scope of its governing body, and within the scope of its corporate powers.

_____ (signature) Affix Corporate Seal

_____ (title)

INSTRUCTIONS: When the offeror/principal is a limited liability company, include this certification with your offer/bid.

Limited Liability Certificate

I, _____ (name), certify that I am the

_____(title), of the limited liability company

named as the Offeror/Principal herein;

that _____(name), who signed this

offer and/or bid bond on behalf of _____ (company name) is

_____ (title) of this company;

that the offer was duly signed for and on behalf of said company by authority and

scope of its governing body, and within the scope of its powers.

_____ (signature)

_____ (title)

Affix Company Seal
(as applicable)

INSTRUCTIONS: When the offeror/principal is a partnership, include this certification with your offer/bid.

Authority to Bind Partnership

This certifies that the names and signatures of all partners are listed below, and that the person signing the proposal has the authority to actually bind the partnership pursuant to its partnership agreement. Each of the partners individually has full authority to enter into and execute contractual instruments on behalf of said partnership, except as follows:

(State "None" or describe limitations, if any)

_____

_____

_____

_____

This authority shall remain in full force and effect until such time as the revocation of authority by any cause whatsoever has been furnished in writing to and acknowledge by the Contracting Officer.

(Include names and signatures of all partners)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

INSTRUCTIONS: When the offeror/principal is a joint venture, include this certification with your offer/bid.

Authority to Bind Joint Venture

This certifies that the person signing the proposal has the authority to actually bind the joint venture pursuant to its joint venture agreement, and that each of the named persons listed below individually has full authority to enter into and execute contractual instruments on behalf of said joint venture, except as follows:

(State "None" or describe limitations, if any)

_____

_____

_____

_____

This authority shall remain in full force and effect until such time as the revocation of authority by any cause whatsoever has been furnished in writing to and acknowledge by the Contracting Officer.

(Include names and signatures of all applicable individuals)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

INSTRUCTIONS: When the offeror/principal is a sole proprietorship, the signature on the offer/bid and on the bonds must be as follows:

Sole Proprietorship Requirement

An Offeror/Principal that is a sole proprietorship must submit an offer/bid and a bond signed by the sole proprietor, or by one duly authorized to sign for the sole proprietor. If the signature is by someone other than the sole proprietor, a copy of the power of attorney authorizing the individual to sign must be provided with the offer/bid.

BID BOND

(See instruction on reverse)

DATE BOND EXECUTED *(Must not be later than bid opening date)*

OMB NO.: **9000-0045**

PRINCIPAL *(Legal name and business address)*

TYPE OF ORGANIZATION *("X" one)*

☐ INDIVIDUAL ☐ PARTNERSHIP

☐ JOINT VENTURE ☐ CORPORATION

STATE OF INCORPORATION

SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND				
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED			
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS

BID IDENTIFICATION	
BID DATE	INVITATION NO. DTFH70-08-R-00008
FOR *(Construction, Supplies,or Services)*	WY PRA-GRTE 13(4), 13(8),& WY PRA GRTE 710(1) North Park Road (Phase II), North Park Road (Snake River Bridge) Grand Teton Park Pathways (Phase I)

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL

SIGNATURE(S)	1. *(Seal)*	2. *(Seal)*	3. *(Seal)*	*Corporate Seal*
NAME(S) & TITLE(S) *(Typed)*	1.	2.	3.	

INDIVIDUAL SURETY(IES)

SIGNATURE(S)	1. *(Seal)*	2. *(Seal)*
NAME(S) *(Typed)*	1.	2.

CORPORATE SURETY(IES)

SURETY A	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	
	SIGNATURE(S)	1.	2.		*Corporate Seal*
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	*Corporate Seal*
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.

2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.

3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., (e.g., 20% of the bid price but the amount not to exceed_____ dollars).

4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designed "SURETY(IES)" on the face of the form, insert only the letter identification of the sureties.

(b) Where individual sureties are involved, a completed Affidavit of Individual surety (Standard Form 28), for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.

5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.

6. Type the name and title of each person signing this bond in the space provided.

7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

Task Order Subcontracting Plan

Contractor: _____

Address: _____

_____

This plan is submitted in accordance with Federal Acquisition Regulations Contract Clause *52.219-9, Small Business Subcontracting Plan*, and will be applicable to any Task Order awarded as result of this Task Order Request For Proposal.

Use the following table to indicate:

1. Goals, express in terms of percentages of total planned subcontracting dollars (column 4)
2. Planned subcontracting dollars (column 2).

Type	Planned Subcontracting Dollars	Calculating Goal percent	Goal percent
(i) Both large & small business concerns (e.g. subcontracting total)	2(i)	n/a	1(i) 100%
(ii) Small business concerns	2(ii)	2(ii) / 2(i)	1(ii)
(iii) Veteran-owned small business concerns	2(iii)	2(iii) / 2(i)	1(iii)
(iv) Service-disabled veteran-owned small business concerns	2(iv)	2(iv) / 2(i)	1(iv)
(v) HUBZone small business concerns.	2(v)	2(v) / 2(i)	1(v)
(vi) Small disadvantaged business concerns	2(vi)	2(vi) / 2(i)	1(vi)
(vii) Women-owned small business concerns	2(vii)	2(vii) / 2(i)	1(vii)

3(i). Supplies and services to be subcontracted to small business concerns:

_____

_____

_____

3(ii). Supplies and services to be subcontracted to veteran-owned small business concerns:

_____

_____

_____

3(iii). Supplies and services to be subcontracted to service-disabled veteran-owned small business concerns:

_____

_____

_____

3(iv). Supplies and services to be subcontracted to HUBZone small business concerns

_____

_____

_____

3(v). Supplies and services to be subcontracted to small disadvantaged business concerns:

_____

_____

_____

3(vi). Supplies and services to be subcontracted to women-owned small business concerns:

_____

_____

_____

4. The following method was used to develop the subcontracting goals:

_____

_____

_____

5. The following method(s) was/were used to identify potential sources [e.g., existing company source lists, the Procurement Marketing & Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vender Information Service, the Research & Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged and women-owned small business trade associations]:

_____

_____

_____

6. Indirect or overhead costs (__)have (__)have not been included in the goals specified above. If costs have been included, describe the method used to determine the proportionate share of costs to be incurred with each type of business.

_____

_____

_____

7. The following individual will administer this Task Order subcontracting program:

Name: _____

Describe the individual's duties relating to the accomplishment of this Task Order subcontracting program:

_____

_____

_____

8. Describe the efforts the Contractor will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

_____

_____

_____

9. The Contractor agrees that FAR Contract Clause *52.219-8, Utilization of Small Business Concerns*, will be included in all subcontracts that offer further subcontracting opportunities, and that the Contractor will require all subcontractors (except small business concerns) who receive subcontracts in excess of $500,000 ($1,000,000 if construction) to adopt a subcontracting plan that complies with the requirements of FAR Contract Clause *52.219-9, Small Business Subcontracting Plan.*

10. The Contractor agrees to: (i) Cooperate in any studies or surveys as may be required; (ii) Submit periodic reports concerning compliance with this subcontracting plan; (iii) Submit *Standard Form (SF) 294, Subcontracting Report for Individual Contracts*, and *Standard Form (SF) 295, Summary Subcontract Report*, in accordance with the instructions on the forms; and (iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

    The SF 294 shall be submitted semiannually and at contract completion. The SF 295 shall be submitted annually at the close of each fiscal year (Sep 30).

11. The Contractor agrees to maintain records to demonstrate procedures adopted to comply with the requirements and goals of this plan. These records shall describe the Contractor's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to these concerns. At a minimum, the records shall include the following:

    (i) Source lists (e.g. ProNet), guides, and other data used to identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

    (ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

    (iii) Records on each subcontract award of more than $100,000. These records shall indicate:

        (A) Whether small business concerns were solicited and, if not, state why not.

        (B) Whether veteran-owned small business concerns were contacted and, if not, state why not.

        (C) Whether service-disabled veteran-owned small business concerns were contacted and, if not, state why not.

        (D) Whether HUBZone small business concerns were contacted and, if not, state why not.

        (E) Whether small disadvantaged business concerns were contacted and, if not, state why not.

        (F) Whether women-owned small business concerns were contacted and, if not, state why not.

        (G) If applicable, the reason award was not made to a small business.

    (iv) Records of outreach efforts to contact trade associations, business development organizations, and conferences/trade fairs in an attempt to locate small, HUBZone small, small disadvantaged and women-owned small business concerns. Records of efforts to contact veterans service organizations.

    (v). Records of internal guidance/encouragement provided to buyers through workshops, seminars, training, etc., and monitoring performance to evaluate compliance with the program’s requirements.

    (vi). On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor.

The Contractor agrees to:

1. Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.
2. Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.
3. Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
4. Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in this subcontracting plan.

The Contractor acknowledges that a failure of the Contractor or subcontractor to comply in good faith with clause *52.219-8, Utilization of Small Business Concerns*, or this approved Task Order subcontracting plan shall be considered a material breach of the contract.

Contractor:

Submitted By: _____
Name and Title of Signer (Type or Print)

_____ Date: _____
Signature of Person Authorized to Sign

Federal Highway Administration:

Accepted by: _____ Date: _____
Michael L. Johnson, Contracting Officer

TABLE OF CONTENTS

03M12/12/07

NOTICE TO OFFEROR

I. Project Location.

The closest project work is located 21 kilometers (13 miles) north of Jackson, Wyoming in Teton County.

Signs have not been erected to identify the project limits. No Government personnel will be available for show-me tours.

II. Pre-proposal Information.

TECHNICAL QUESTIONS REGARDING PROPOSED WORK FOR THIS PROJECT WILL NOT BE ACCEPTED AFTER THE CLOSE-OF-BUSINESS ON APRIL 28, 2008.

Questions can be submitted and answers viewed by going to project information at

http://www.wfl.fha.dot.gov/edi/current.htm

This solicitation includes electronic plan sheets. Plan sheets can be found at http://www.wfl.fhwa.dot.gov/edi/plans/grte/ and viewed by individual sections, downloaded by individual sections, or the entire plan set downloaded in a zip file. A paper copy of the plan sheets is available by submitting the form included in this solicitation. A CD of the physical data is available by submitting the form included in this solicitation.

Requests for technical information (Plan and Division 100 – 700 Specification questions only)

REPS & CERTS**.** Submit or update Representations and Certifications online at http://orca.bpn.gov before bid submittal. For more details go to FAR Provision *52.204-8 Annual Representations and Certifications* (see page B-2). If you have previously registered on-line and the NAICS code for this solicitation is different than the code listed in your online file, please note the amended changes on the lines provided in FAR 52.204-8.

Bids for the construction of this project are being invited under four bid schedules, designated Base Schedule, Option A, Option B, and Option C. Option A, Option B, and Option C are additional amounts of work and NOT alternate methods of completing the work. Complete all four Bid Schedules and the Bid Summary page A-31 according to Subsection 102.02 of the Special Contract Requirements.

It is the Government's intent to award without discussions in accordance with FAR provision 52.215-1. **Award will be based on the lowest offer received**. See Subsection 102.05A of the Special Contract Requirements.

Particular attention should be paid to Standard Form l442, Solicitation, Offer and Award, to assure that Blocks 14, 15, 16, 19, 20A, and 20C are completed correctly. Sign Block 20B according to the instructions in Subsection 102.02. You must submit a completed 'Authority to Sign' document. You must also complete the representations and certifications contained in the Contract Provisions beginning on page B-1. Failure to furnish or complete any of the above may result in your bid being considered nonresponsive and being rejected.

Facsimile bids are not authorized for this solicitation. Bids may be modified or withdrawn by facsimile, if such notice is received by the time specified for receipt of bids. The Government will not be responsible for any failure attributable to the transmission or receipt of facsimile data. See FAR Provision 52.215-1, Instructions to Offerors – Competitive Acquisition. FAX 360.619.7932.

Notice of CCR Registration**.** You must register in the Central Contract Registration (CCR) prior to award of this contact. Failure to register prior to contract award will require award to be offered to the next successful registered Offeror. See FAR Subpart 4.1103(c). Register online at www.ccr.gov or call toll free: 888.227.2423.

III. Post Award Information.

Insurance requirements are set forth in Subsection 107.05.

Contractor Performance Evaluations. FHWA is now posting evaluations in the National Institutes of Health's Contractor Performance System (CPS) for completed projects. Register at https://cps.nih.gov/infopage.asp (Click on "CPS Info" tab, then click on "Contractor Information" button) to view and comment on evaluations. System registration is only required once. Review the evaluation and submit comments within 30 days of notification. Reviewing the evaluation and submitting comments is limited to one entry. If unable to register, call 360.619.7520 for assistance or a copy of the evaluation. You can also access the Contractor User Manual from this web link.

IV. Specifications and Permits.

This solicitation and subsequent contract are governed by the Federal Acquisition Regulation (FAR), agency supplemental regulations, and the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Metric Units. Paper copies of the FP-03 are for sale by the U.S. Government Printing Office. An electronic version may be found at http://www.wfl.fha.dot.gov/design/specs/fp03.htm.

Geotechnical, hydraulic, bridge, and design data applicable to this project is listed in FAR Clause 52.236-4, Physical Data.

The Government offers to make available to the Contractor a laboratory trailer with test equipment. See Subsection 154.04A, Laboratory Trailer and Testing Equipment.

There are no longer two separate pay items for hot asphalt concrete pavement and asphalt binder under Section 401, they have been combined. The Government has changed the formula for the Material Pay Factor for Section 401. See Subsection 401.19.

Careful review should be taken when reviewing the following Sections:

Section 105 Control of Materials. Material conditions at Spread Creek Pit may warrant curative measures in aggregate production due to the presence of clayey gravel seams and lenses.

Section 107 Legal Relations And Responsibility To The Public. Private, public, and federally owned utilities are present on the project site. Coordination efforts will be required to protect, relocate, and accommodate relocation activities.

NOTICE OF POTENTIAL POSTAWARD ADDITION OF WORK: Additional work in this area is in development and MAY be added by modification after award of this Task Order. The work may involve stabilizing and repairing an approximately 500-m long section of the Pacific Creek Road (Park Route 114) in Grand Teton National Park at milepost 1.8 on the Pacific Creek Road, roughly two miles north of Moran Junction. Elements of work may include clearing and grubbing, grading, recycled aggregate base, paving, drainage, riprap, topsoil, seeding, and mulching. The range of the additional work is currently anticipated to be between $500,000 and $1 million.

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SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. Solicitation No. DTFH70-08-R-00008	2. Type of Solicitation [ ] Sealed Bid (IFB) [X] Negotiated (RFP)	3. Date Issued 04/02/2008	Page A-3

IMPORTANT – The "offer" section on the reverse must be fully completed by offeror.

4. Contract No.	5. Requisition/Purchase Request No.	6. Project No.
	N/A	WY PRA GRTE 13(4), 13(8) & WY PLD GRTE 710(1)

7. Issued By	Code: N/A	8. Address Offer to	Code: N/A
U.S. Department of Transportation Federal Highway Administration 610 East Fifth Street Vancouver WA 98661-3801		**Attn: Contracts Section** .	

9. For Information Call:	A. Name	B. Telephone No. *(Include area code) (No Collect Calls)*
	.	360.619.7520

SOLICITATION

NOTE: In sealed bid solicitation "offer" and "offeror" mean "bid" and "bidder"

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS:

This solicitation is being issued under the Yellowstone/Grand Teton National Park MATOC and is designated *WY PRA GRTE 13(4), 13(8), & WY PLD GRTE 710(1) North Park Road (Phase II), North Park Road (Snake River Bridge), & -Grant Teton Park Pathways (Phase I),* Grand Teton National Park, Teton County, Wyoming.

IN STRICT ACCORDANCE WITH:

IDIQ Description/Specifications/Statement of Work –
Task Order Schedule - pages
Task Order Description/Specifications/Statement of Work
Federal Acquisition Regulations (FAR) and Transportation Acquisition Regulations (TAR) –
Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 ***Metric*** Units

11. The Contractor shall begin performance within * calendar days and complete it within * calendar days after receiving the [ ] award, [ ] notice to proceed. This performance period is [X] mandatory [ ] negotiable. *(See* *Clause 52.211-10 *.)*

12A. The Contractor must furnish any required performance and payment bonds? *(If "YES", indicate within how many calendar days after award in item 12B.)* [X] Yes [ ] No	12B. Calendar Days 10

13. Additional Solicitation Requirements:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 2:00 PM local time **05/02/2008**. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [X] is [ ] Is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. Name and Address of Offeror *(Include ZIP Code)*	15. Telephone No. *(Include are code)*
	16. Remittance Address *(Include on it different than Item 14)*

DUNS number:

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this is accepted by the Government in writing within ____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	See Bid Schedule

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGEMENT OF AMENDMENTS
(The offeror acknowledges receipt of amendment to the solicitation - give number and date of each)

AMENDMENT No.										
DATE										

20A NAME,TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or Print)*	20B. SIGNATURE	20c. OFFER DATE

AWARD *(to be completed by Government)*

21. ITEM(S) ACCEPTED

All items on Bid Schedule.

22. Amount	23. Accounting and Appropriation Data

24. Submit Invoices to Address shown in *(4 copies unless otherwise specified)*	Item See Page A-3	25. Other Than full and open competition pursuant to ☐ 10 U.S.C. 2304(c) (_____) ☐ 41 U.S.C 253 (c) (_____)

26. Administered by	Payment will be made by
Federal Highway Administration Western Federal Lands Highway Division 610 East Fifth Street Vancouver WA 98661-3801	Finance Section Western Federal Lands Highway Division 610 East Fifth Street Vancouver WA 98661-3801

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office)* Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and(c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
30A. Name and Title of Contractor or Person authorized to sign *(Type or Print)*	31A. Name of Contracting Officer *(Type or Print)* Michael L. Johnson
30b. Signature / 30C. Date	31B. United States of America By / 31C. Award Date

STANDARD FORM 1442 BACK (REV. 4-85)

Block 9

FOR GENERAL INFORMATION, call **360.619.7520** from the hours of 8:00 a.m. to 4:00 p.m. local time or e-mail us at **contracts@mail.wfl.fhwa.dot.gov**. You can also submit questions online from our Western Federal Lands webpage as described below.

FOR TECHNICAL INFORMATION (plan and specification questions only), requests for technical information about this project will only be accepted in writing. Submit questions via fax (360.619.7932) or e-mail at **plans_spec@fhwa.dot.gov** . You can also submit questions online from our Western Federal Lands webpage as described below.

SUBMIT QUESTIONS ONLINE. You can submit your questions from our Western Federal Lands website **http://www.wfl.fha.dot.gov/edi/current.htm.** In "Advertised Projects", scroll to the project and click on "Technical Information Question" or "General Information Question", as applicable. Previously asked and answered questions will be available for viewing on the website.

FOR DAVIS-BACON WAGE RATE INFORMATION call the Department of Labor at **972.850.2634**.

FOR PHYSICAL DATA, See FAR Contract Clause 52.236-4, Physical Data, (clauses begin on page C-1) for a listing of available data. To obtain copies of Physical Data, submit a written request to the Contracts Section, **FAX 360.619.7932** or e-mail us at **contracts@mail.wfl.fhwa.dot.gov**. The Government requires 3 working days to print documents. Requests should be made early to assure timely arrival.

Block 11

COMPLETION DATE: Work shall be completed on or before the date specified in FAR Clause *52.211-10, Commencement, Prosecution, and Completion of Work,* subject to such extensions as may be authorized by the terms of the contract and the specifications made a part thereof. Contract Clauses begin on pages C-1.

Block 12A

PERFORMANCE & PAYMENT BONDS: See FAR Clause, *52.228-15, Performance and Payment Bonds - Construction* (clauses begin on page C-1) and Subsection 102.06 of the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 (Metric Units).*

Block 13B

BID BOND AMOUNT: See FAR Clause 52.228-1, Bid Guarantee (clauses begin on page C-1).

ADDITIONAL INFORMATION: See Subsections 102.03 and 102.04 of *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03, (Metric Units).*

Block 24

SUBMITTING INVOICES: See Subsection 109.08 of the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 (Metric Units).*

SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM. This solicitation is NOT a Small Business Set-Aside. However, award is made pursuant to the Small Business Competitiveness Demonstration Program.

ESTIMATED PRICES. The price range of the project work is between **$15,000,000.00** and **$20,000,000.00.**

SUBCONTRACTING PLAN. This request for proposal requires an offeror who is a LARGE business to submit an acceptable subcontracting plan with their proposal. A large business is one whose average gross annual receipts over the past 3 years equal $31 million or more. For your information the subcontracting plan form is included beginning on page A-6a. This requirement does not apply to SMALL businesses.

Bid Schedule

Project: WY PRA-GRTE 13(4)
NORTH PARK ROAD PHASE II

Offeror please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

The quantities for the following items of work are Contract Quantities (see FP-03 Subsection 109.02):
20101-0000, 20402-0000, 20403-0000, 21201-0000, 62510-2000, 62515-1000, 62515-2000

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization		
	ALL	Lump Sum	$_____
15201-0000	Construction survey and staking		
	ALL	Lump Sum	$_____
15301-0010	Contractor quality control and assurance		
	ALL	Lump Sum	$_____
15401-0000	Contractor testing		
	ALL	Lump Sum	$_____
15501-0000	Construction schedule		
	ALL	Lump Sum	$_____
15703-2000	Soil erosion control, temporary turf establishment (hydraulic)		
	0.800 ha	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15704-1000	Soil erosion control, plastic lining		
	760		
	m2	$_____	$_____
15705-0100	Soil erosion control, silt fence		
	1,650.0		
	m	$_____	$_____
15705-0600	Soil erosion control, temporary 600mm culvert pipe		
	175.0		
	m	$_____	$_____
15705-1300	Soil erosion control, temporary diversion channel		
	170.0		
	m	$_____	$_____
15705-1500	Soil erosion control, sediment wattle		
	4,100.0		
	m	$_____	$_____
15706-0300	Soil erosion control, sandbag		
	230		
	Each	$_____	$_____
15801-0000	Watering for dust control		
	34,200.0		
	m3	$_____	$_____
20101-0000	Clearing and grubbing		
	23.560		
	ha	$_____	$_____
20301-1100	Removal of gates , wood		
	4		
	Each	$_____	$_____
20301-1200	Removal of headwall , stone masonry headwall		
	2		
	Each	$_____	$_____
20301-1900	Removal of pipe culvert		
	4		
	Each	$_____	$_____
20301-2400	Removal of signs and stockpilling		
	11		
	Each	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20301-2700	Removal of structure , wingwall		
	2		
	Each	$_____	$_____
20302-0300	Removal of curb and gutter, concrete		
	382		
	m	$_____	$_____
20302-0400	Removal of curb, asphalt		
	878		
	m	$_____	$_____
20303-1600	Removal of pavement, asphalt		
	96,412		
	m2	$_____	$_____
20401-0000	Roadway excavation		
	60,000.0		
	m3	$_____	$_____
20402-0000	Subexcavation		
	10,407.9		
	m3	$_____	$_____
20403-0000	Unclassified borrow		
	140.0		
	m3	$_____	$_____
20411-0000	Select borrow		
	26,500.00		
	t	$_____	$_____
20416-0000	Select topping		
	48,000.00		
	t	$_____	$_____
20701-0500	Earthwork geotextile, type I-E		
	500		
	m2	$_____	$_____
20701-0800	Earthwork geotextile, type II-B		
	28,000		
	m2	$_____	$_____
21201-0000	Linear grading		
	0.130		
	km	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
25101-1000	Placed riprap, class 1		
	410.0		
	m3	$_____	$_____
25101-3000	Placed riprap, class 3 , Energy Dissipator		
	20.0		
	m3	$_____	$_____
25125-0000	Boulder		
	4		
	Each	$_____	$_____
25210-0000	Rockery , type I		
	17		
	m2	$_____	$_____
30101-2000	Aggregate base grading D		
	53,900.00		
	t	$_____	$_____
30601-0000	Dust palliative application		
	5.20		
	km	$_____	$_____
30606-0000	Magnesium chloride		
	70.00		
	t	$_____	$_____
30901-2000	Emulsified asphalt treated aggregate base, grading D		
	29,000.00		
	t	$_____	$_____
30905-1200	Emulsified asphalt, grade CSS-1		
	290.00		
	t	$_____	$_____
40101-1000	Superpave pavement, 19mm nominal maximum size aggregate, 0.3 to <3 million ESAL		
	18,000.00		
	t	$_____	$_____
40105-3000	Antistrip additive, type 3		
	180.00		
	t	$_____	$_____
41201-1000	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h		
	4.50		
	t	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60201-0800	600mm pipe culvert		
	1,100.0 m	$_____	$_____
60201-0900	750mm pipe culvert		
	90.0 m	$_____	$_____
60201-1000	900mm pipe culvert		
	50.0 m	$_____	$_____
60201-1100	1050mm pipe culvert		
	90.0 m	$_____	$_____
60201-1200	1200mm pipe culvert		
	60.0 m	$_____	$_____
60202-0400	600mm equivalent diameter arch or elliptical pipe culvert		
	65.0 m	$_____	$_____
60202-0600	900mm equivalent diameter arch or elliptical pipe culvert		
	20.0 m	$_____	$_____
60210-0800	End section for 600mm pipe culvert		
	30 Each	$_____	$_____
60210-0900	End section for 750mm pipe culvert		
	4 Each	$_____	$_____
60211-0800	End section for 600mm equivalent diameter arch or elliptical pipe culvert		
	5 Each	$_____	$_____
60211-1000	End section for 900mm equivalent diameter arch or elliptical pipe culvert		
	1 Each	$_____	$_____
60510-0700	150mm collector pipe		
	2,580.0 m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60510-0800	150mm outlet pipe		
	190.0		
	m	$_____	$_____
60705-0000	Reconditioning drainage structure		
	1		
	Each	$_____	$_____
60901-1300	Curb, concrete, 375mm depth		
	190.0		
	m	$_____	$_____
60902-1000	Curb and gutter, concrete, 300mm depth		
	400.0		
	m	$_____	$_____
61501-0100	Sidewalk, concrete		
	290		
	m2	$_____	$_____
61902-0900	Gate, metal , 8000mm, double tubular		
	2		
	Each	$_____	$_____
61902-1500	Gate, metal, 5400mm width , tubular		
	2		
	Each	$_____	$_____
62011-0500	Stone masonry headwall for 600mm pipe culvert		
	2		
	Each	$_____	$_____
62028-1000	Remove and reset stone masonry headwall		
	42		
	Each	$_____	$_____
62201-0250	Dump truck, 10 cubic meter minimum capacity		
	180.0		
	Hour	$_____	$_____
62201-0600	Backhoe loader, 240 liter minimum rated capacity bucket, 750mm width		
	154.0		
	Hour	$_____	$_____
62201-0950	Wheel loader, 3 cubic meter minimum rated capacity		
	102.0		
	Hour	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62201-1950	Bulldozer, universal blade, 225kW minimum		
	130.0 Hour	$_____	$_____
62201-2850	Motor grader, 3.6 meter minimum blade		
	74.0 Hour	$_____	$_____
62201-3400	Hydraulic excavator, 1.1 cubic meter minimum capacity with thumb attachment		
	94.0 Hour	$_____	$_____
62301-0000	General labor		
	420.0 Hour	$_____	$_____
62406-0100	Placing conserved topsoil, 50mm depth		
	25.420 ha	$_____	$_____
62407-0000	Placing conserved topsoil		
	18.000 m3	$_____	$_____
62510-2000	Seeding, hydraulic method		
	27.940 ha	$_____	$_____
62515-1000	Mulching, dry method		
	23.880 ha	$_____	$_____
62515-2000	Mulching, hydraulic method		
	4.540 ha	$_____	$_____
63302-0000	Sign system		
	4.05 m2	$_____	$_____
63316-1000	Remove and reset sign		
	15 Each	$_____	$_____
63318-1000	Snowpole holder		
	244 Each	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63401-0300	Pavement markings, type B, solid yellow		
	26,600 m	$_____	$_____
63401-0300	Pavement markings, type B, solid white		
	20,840 m	$_____	$_____
63401-0400	Pavement markings, type B, broken yellow		
	8,720 m	$_____	$_____
63401-0400	Pavement markings, type B, broken white		
	500 m	$_____	$_____
63401-0450	Pavement markings, type B, dotted white		
	500 m	$_____	$_____
63405-0850	Pavement markings, type B, accessibility symbol		
	2 Each	$_____	$_____
63502-0400	Temporary traffic control, barricade type 1		
	400 Each	$_____	$_____
63502-0600	Temporary traffic control, barricade type 3		
	8 Each	$_____	$_____
63502-0700	Temporary traffic control, cone , tubular, 1050mm minimum		
	200 Each	$_____	$_____
63502-1300	Temporary traffic control, drum type 1		
	10 Each	$_____	$_____
63502-1500	Temporary traffic control, warning light type A		
	8 Each	$_____	$_____
63502-1700	Temporary traffic control, warning light type C		
	400 Each	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63502-2000	Temporary traffic control, portable changeable message sign		
	2		
	Each	$_____	$_____
63503-0700	Temporary traffic control, pavement markings		
	21,650.0		
	m	$_____	$_____
63503-1000	Temporary traffic control, plastic fence		
	1,300.0		
	m	$_____	$_____
63504-1000	Temporary traffic control, construction sign		
	51.10		
	m2	$_____	$_____
63506-0600	Temporary traffic control, pilot car		
	575.0		
	Hour	$_____	$_____
63507-0700	Temporary traffic control, traffic and safety supervisor		
	200		
	Day	$_____	$_____
63509-1000	Temporary traffic control, flagger		
	2,300.0		
	Fix hr rate	22.00	50,600.00
63601-3000	System installation, electrical and other, coordination		
	ALL	Lump Sum	$_____
63601-3000	System installation, electrical		
	ALL	Lump Sum	$_____
63622-0000	Utility trench		
	6,220.0		
	m	$_____	$_____
64702-1000	Mitigation, landscaping log		
	290.0		
	m	$_____	$_____

TOTAL $_____

Submitted by: _____

Name of Offeror

Bid Schedule

Project: WY-PRA-GRTE 13(4)
EASTSIDE HIGHWAY, BUFFALO FORK RIPRAP (OPTION A)

Offeror please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization		
	ALL	Lump Sum	$_____
15201-0000	Construction survey and staking		
	ALL	Lump Sum	$_____
15501-0000	Construction schedule		
	ALL	Lump Sum	$_____
15705-0100	Soil erosion control, silt fence		
	325.0		
	m	$_____	$_____
15705-1500	Soil erosion control, sediment wattle		
	325.0		
	m	$_____	$_____
20701-0800	Earthwork geotextile, type II-B		
	4,500		
	m2	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
25101-5000	Placed riprap, class 5		
	3,892.0		
	m3	$_____	$_____
63502-0700	Temporary traffic control, cone , tubular, 1050mm minimum		
	31		
	Each	$_____	$_____
63503-1000	Temporary traffic control, plastic fence		
	325.0		
	m	$_____	$_____
63504-1000	Temporary traffic control, construction sign		
	24.68		
	m2	$_____	$_____
63507-0700	Temporary traffic control, traffic and safety supervisor		
	7		
	Day	$_____	$_____
63509-1000	Temporary traffic control, flagger		
	140.0		
	Fix hr rate	19.00	2,660.00

TOTAL $_____

Submitted by: _____

Name of Offeror

Bid Schedule

Project: WY PRA-GRTE 13(8)
NORTH PARK ROAD, SNAKE RIVER BRIDGE (OPTION B)

Offeror please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

The quantities for the following items of work are Contract Quantities (see FP-03 Subsection 109.02):
20101-0000, 20401-0000, 20402-0000, 20801-0000, 55201-0800, 55401-1000, 55401-2000, 55502-0000, 56401-1000, 56601-0000, 62510-2000, 62515-1000, 63610-2200

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization		
	ALL	Lump Sum	$_____
15201-0000	Construction survey and staking		
	ALL	Lump Sum	$_____
15301-0000	Contractor quality control		
	ALL	Lump Sum	$_____
15401-0000	Contractor testing		
	ALL	Lump Sum	$_____
15501-0000	Construction schedule		
	ALL	Lump Sum	$_____
15705-0100	Soil erosion control, silt fence		
	62.3 m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15705-1500	Soil erosion control, sediment wattle		
	225.4		
	m	$_____	$_____
20101-0000	Clearing and grubbing		
	0.328		
	ha	$_____	$_____
20301-2400	Removal of signs and stockpiling		
	6		
	Each	$_____	$_____
20303-1600	Removal of pavement, asphalt		
	1,913		
	m2	$_____	$_____
20304-2000	Removal of bridge		
	ALL	Lump Sum	$_____
20401-0000	Roadway excavation		
	135.0		
	m3	$_____	$_____
20402-0000	Subexcavation		
	227.1		
	m3	$_____	$_____
20404-0000	Unclassified borrow		
	570.00		
	t	$_____	$_____
20411-0000	Select borrow		
	500.00		
	t	$_____	$_____
20701-0800	Earthwork geotextile, type II-B		
	460		
	m2	$_____	$_____
20701-1200	Earthwork geotextile, type IV-A		
	150		
	m2	$_____	$_____
20801-0000	Structure excavation		
	202.0		
	m3	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
25101-6000	Placed riprap, class 6		
	200.0 m3	$_____	$_____
25201-1000	Special rock embankment, mechanically-placed		
	30.0 m3	$_____	$_____
27001-0000	Grout		
	20.0 m3	$_____	$_____
27003-0000	Drilled hole		
	142.7 m	$_____	$_____
30101-2000	Aggregate base grading D		
	650.00 t	$_____	$_____
40301-0300	Hot asphalt concrete pavement, grading C , type III pavement roughness		
	400.00 t	$_____	$_____
41201-1000	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h		
	0.60 t	$_____	$_____
55201-0800	Structural concrete, class D (AE)		
	366.0 m3	$_____	$_____
55401-1000	Reinforcing steel		
	11,408.1 kg	$_____	$_____
55401-2000	Reinforcing steel, epoxy coated		
	27,437.0 kg	$_____	$_____
55502-0000	Structural steel, furnished, fabricated, and erected		
	57,153.0 kg	$_____	$_____
55601-0500	Bridge railing, concrete		
	165.0 m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
56401-1000	Bearing device, elastomeric		
	16		
	Each	$_____	$_____
56601-0000	Shotcrete		
	317		
	m2	$_____	$_____
60504-0000	Geocomposite sheet drain system		
	80		
	m2	$_____	$_____
60510-0700	150mm collector pipe		
	80.0		
	m	$_____	$_____
60510-0800	150mm outlet pipe		
	30.0		
	m	$_____	$_____
62201-3400	Hydraulic excavator, 1.1 cubic meter minimum capacity with thumb attachment		
	80		
	Hour	$_____	$_____
62301-0000	General labor		
	120		
	Hour	$_____	$_____
62407-0000	Placing conserved topsoil		
	63.0		
	m3	$_____	$_____
62510-2000	Seeding, hydraulic method		
	0.073		
	ha	$_____	$_____
62515-1000	Mulching, dry method		
	0.073		
	ha	$_____	$_____
63316-1000	Remove and reset sign		
	4		
	Each	$_____	$_____
63401-0300	Pavement markings, type B, solid white		
	475		
	m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63401-0300	Pavement markings, type B, solid yellow		
	970		
	m	$_____	$_____
63401-0450	Pavement markings, type B, dotted white		
	60		
	m	$_____	$_____
63501-2000	Temporary traffic control, traffic signal system		
	ALL	Lump Sum	$_____
63502-1250	Temporary traffic control, tubular marker, type 1050mm		
	12		
	Each	$_____	$_____
63502-1300	Temporary traffic control, drum		
	17		
	Each	$_____	$_____
63502-1500	Temporary traffic control, warning light type A		
	8		
	Each	$_____	$_____
63503-0400	Temporary traffic control, concrete barrier		
	170.0		
	m	$_____	$_____
63503-0500	Temporary traffic control, moving concrete barrier		
	170.0		
	m	$_____	$_____
63503-0700	Temporary traffic control, pavement markings		
	350.0		
	m	$_____	$_____
63503-1000	Temporary traffic control, plastic fence		
	195.0		
	m	$_____	$_____
63504-1000	Temporary traffic control, construction sign		
	21.92		
	m2	$_____	$_____
63507-0700	Temporary traffic control, traffic and safety supervisor		
	100		
	Day	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63509-1000	Temporary traffic control, flagger		
	756.0		
	Fix hr rate	22.00	16,632.00
63610-2200	Conduit, 75mm, PVC		
	330.0		
	m	$_____	$_____

TOTAL $_____

Submitted by: _____

Name of Offeror

Bid Schedule

Project: WY PLD-GRTE 710(1)
GRAND TETON PARK PATHWAYS, PHASE I, OPTION C

Offeror please note: Before preparing the bid, carefully read the Solicitation Provisions.

Insert a unit bid price, in figures, for each pay item for which a quantity appears in the bid schedule. Multiply the unit price by the quantity for each pay item and show the amount bid. Should any mathematical check made by the Government show a mistake in the amount bid, the Amount Bid for the item will be based on the Unit Bid Price.

When "LPSM" (Lump Sum) appears as a unit bid price, insert an amount for each lump sum pay item.

When a sum based on a fixed rate appears for any pay item in the amount bid column, include the Government inserted amount bid for the item in the total bid amount.

Total the amounts bid for all pay items and insert the total bid amount.

The quantities for the following items of work are Contract Quantities (see FP-03 Subsection 109.02):
20801-0000, 55201-0200, 55401-1000, 55504-0000, 55601-0900, 60504-0000

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	Mobilization		
	ALL	Lump Sum	$_____
15201-0000	Construction survey and staking		
	ALL	Lump Sum	$_____
15301-0010	Contractor quality control and assurance		
	ALL	Lump Sum	$_____
15401-0000	Contractor testing		
	ALL	Lump Sum	$_____
15501-0000	Construction schedule		
	ALL	Lump Sum	$_____
15705-0100	Soil erosion control, silt fence		
	150.0		
	m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15705-1500	Soil erosion control, sediment wattle		
	1,950.0		
	m	$_____	$_____
15801-0000	Watering for dust control		
	6,000.0		
	m3	$_____	$_____
20101-0000	Clearing and grubbing		
	7.940		
	ha	$_____	$_____
20301-2400	Removal of signs and stockpiling		
	1		
	Each	$_____	$_____
20302-0300	Removal of curb and gutter, concrete		
	271.6		
	m	$_____	$_____
20302-2600	Removal of pavement markings , 100 mm		
	1,132		
	m	$_____	$_____
20302-2600	Removal of pavement markings , 450 mm		
	29		
	m	$_____	$_____
20303-1600	Removal of pavement, asphalt		
	85		
	m2	$_____	$_____
20401-0000	Roadway excavation		
	11,765.0		
	m3	$_____	$_____
20404-0000	Unclassified borrow		
	45,000.00		
	t	$_____	$_____
20801-0000	Structure excavation		
	400.0		
	m3	$_____	$_____
25101-5000	Placed riprap, class 5		
	65.0		
	m3	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
25125-0000	Boulder		
	20		
	Each	$_____	$_____
25501-1000	Mechanically stabilized earth wall, welded wire face		
	89		
	m2	$_____	$_____
30101-2000	Aggregate base grading D		
	9,700.00		
	t	$_____	$_____
30502-0300	Aggregate-topsoil course, 50mm depth		
	16,650		
	m2	$_____	$_____
40401-0000	Minor hot asphalt concrete		
	5,600.00		
	t	$_____	$_____
55201-0200	Structural concrete, class A (AE)		
	67.0		
	m3	$_____	$_____
55401-1000	Reinforcing steel		
	3,600.0		
	kg	$_____	$_____
55504-0000	Pre-fabricated steel bridge , pedestrian		
	ALL	Lump Sum	$_____
55601-0900	Bridge railing, steel		
	27.0		
	m	$_____	$_____
57501-0000	Minor bridge work		
	ALL	Lump Sum	$_____
60201-0100	100mm pipe culvert		
	40.0		
	m	$_____	$_____
60201-0600	450mm pipe culvert		
	55.0		
	m	$_____	$_____
60201-0800	600mm pipe culvert		
	30.0		
	m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60202-0200	450mm equivalent diameter arch or elliptical pipe culvert		
	48.0		
	m	$_____	$_____
60212-0600	Elbow, 450mm		
	1		
	Each	$_____	$_____
60403-0100	Inlet, type 1		
	1		
	Each	$_____	$_____
60504-0000	Geocomposite sheet drain system		
	82		
	m2	$_____	$_____
60510-0300	100mm collector pipe		
	39.0		
	m	$_____	$_____
60510-0400	100mm outlet pipe		
	18.0		
	m	$_____	$_____
60901-1300	Curb, concrete, 375mm depth		
	120.0		
	m	$_____	$_____
60902-1000	Curb and gutter, concrete, 300mm depth		
	187.6		
	m	$_____	$_____
61101-0000	Water system , irrigation modification		
	ALL	Lump Sum	$_____
61105-0000	Valve box , adjustment		
	1		
	Each	$_____	$_____
61501-0100	Sidewalk, concrete		
	45		
	m2	$_____	$_____
61501-1100	Sidewalk, asphalt		
	12		
	m2	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
61904-0000	Bollard post		
	37		
	Each	$_____	$_____
62201-0250	Dump truck, 10 cubic meter minimum capacity		
	40.0		
	Hour	$_____	$_____
62201-0600	Backhoe loader, 240 liter minimum rated capacity bucket, 750mm width		
	40.0		
	Hour	$_____	$_____
62201-3000	Hydraulic excavator , 0.06 cubic meters minimum capcity		
	100.0		
	Hour	$_____	$_____
62201-3500	Loader, wheel, skid steer, 30kW minimum		
	50.0		
	Hour	$_____	$_____
62301-0000	General labor		
	200.0		
	Hour	$_____	$_____
62406-0100	Placing conserved topsoil, 50mm depth		
	4.400		
	ha	$_____	$_____
63301-1000	Sign system, Government furnished sign		
	21		
	Each	$_____	$_____
63302-0000	Sign system		
	25.00		
	m2	$_____	$_____
63316-1000	Remove and reset sign		
	10		
	Each	$_____	$_____
63401-0300	Pavement markings, type B, solid white 100 mm		
	1,500		
	m	$_____	$_____
63401-0300	Pavement markings, type B, solid , red		
	120		
	m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63401-0300	Pavement markings, type B, solid yellow, 100 mm		
	510		
	m	$_____	$_____
63401-0300	Pavement markings, type B, solid white, 300 mm		
	570		
	m	$_____	$_____
63403-0200	Pavement markings, type B , symbol		
	36		
	m2	$_____	$_____
63502-1250	Temporary traffic control, tubular marker, type 1050mm		
	50		
	Each	$_____	$_____
63502-1300	Temporary traffic control, drum , type 1 meter		
	10		
	Each	$_____	$_____
63503-1000	Temporary traffic control, plastic fence		
	650.0		
	m	$_____	$_____
63504-1000	Temporary traffic control, construction sign		
	25.00		
	m2	$_____	$_____
63507-0700	Temporary traffic control, traffic and safety supervisor		
	40		
	Day	$_____	$_____
63509-1000	Temporary traffic control, flagger		
	480.0		
	Fix hr rate	22.00	10,560.00
63601-3000	System installation, electrical and other, coordination		
	ALL	Lump Sum	$_____
63602-6000	System installation, traffic detector system		
	3		
	Each	$_____	$_____
63610-0000	Conduit , 50 mm, HDPE		
	470.0		
	m	$_____	$_____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63610-0000	Conduit , 125mm, fiberglass or aluminium		
	155.0 m	$_____	$_____
63610-1600	Conduit, 50mm, PVC , schedule 80		
	25.0 m	$_____	$_____
63621-1000	Utility box, pullbox , fiber optic		
	3 Each	$_____	$_____
63621-1000	Utility box, pullbox , relocate, fiber optic		
	1 Each	$_____	$_____
63641-0700	Relocate light pole		
	1 Each	$_____	$_____
64501-0000	Locate utilities , government-owned facilities		
	ALL	Lump Sum	$_____
64603-0300	Fixture, bench		
	3 Each	$_____	$_____
64603-0500	Fixture, bicycle storage rack		
	41 Each	$_____	$_____
64604-3000	Fixture, pedestrian railing		
	39.0 m	$_____	$_____

TOTAL $_____

Submitted by: _____

Name of Offeror

Bid Summary

Project: WY PRA-GRTE 13(4), 13(8) & WY PLD-GRTE 710(1)
North Park Road (Phase II), North Park Road,
(Snake River Bridge) & Grand Teton Park Pathways (Phase I)

SCHEDULE	SCHEDULE AMOUNT
Base (page A-15)	$ _____
Option A (page A-17)	$ _____
Option B (page A-23)	$ _____
Option C (page A-30)	$ _____
TOTAL – ALL SCHEDULES	$ _____

Submitted by: _____

Federal Acquisition Regulation
Solicitation Provisions

Representations, Certifications and Other Statements of Offeror

Note: The provisions included in the basic IDIQ apply. The following provisions have been changed or require fill-in for this specific project.

The Offeror Makes the Following Representations and Certifications as a Part of its Offer.

52.203-11 Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (Sept 2005)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989—

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of this contract;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, Title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

Completing FAR provision *52.204-8 Annual Representation and Certifications.*

- This solicitation is issued under NAICS 237310 – Highway, Street & Bridge Construction with a small business size standard of $31 million. If your average annual gross receipts for the past 3 years are above $31.0 million you are a large business for this solicitation. If they are below $31.0 million you are a small business. Please complete the certification listed in paragraph (b).
- Your small business information is pulled into ORCA from the Central Contractor Registration (CCR). Please include NAICS 237310 in the Central Contractor Registration (CCR) at http://www.ccr.gov/. Please note that if you are currently using a NAICS code beginning in 234, you are using an outdated code. Please update your files to 237310 – Highway, Street & Bridge Construction.
- Before submitting bids, please ensure you have completed your annual representations and certifications electronically at the ORCA website, http://orca.bpn.gov.

52.222-23 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction (Feb 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade: 4.0%

Goals for Female Participation for Each Trade: 6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the *Federal Register* in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the—

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is **Teton County, Wyoming.**

FEDERAL ACQUISITION REGULATION
SOLICITATION PROVISIONS

Note: The provisions included in the basic IDIQ apply. The following provisions have been changed or require fill-in for this specific project.

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

52.216-1 Type of Contract (Apr 1984)

The Government contemplates award of a **firm fixed-price task order contract** resulting from this solicitation.

52.217-5 Evaluation of Options (Jul 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

52.236-27 Site Visit (Construction) (Feb 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

Prospective Offerors were encouraged by letter of November 6, 2007 to inspect the site prior to onset of adverse weather conditions. Currently, the site may not be accessible. There will be no government arranged site visits.

Reserved

Federal Acquisition Regulation
Contract Clauses

Note: The clauses included in the basic IDIQ apply. The following clauses have been changed or require fill-in for this specific project.

52.204-1 Approval of Contract (Dec 1989)

This contract is subject to the written approval of the Western Federal Lands' Division Engineer (or delegate) or the Second Level Contracting Officer, and shall not be binding until so approved.

52.211-10 Commencement, Prosecution, and Completion of Work (Apr 1984) Alternate I (Apr 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than **October 16, 2009** subject to such extensions as may be authorized. The time stated for completion shall include final cleanup of the premises.

The completion date is based on the assumption that the successful offeror will receive the notice to proceed **by May 22, 2008**. The completion date will be extended by the number of calendar days after the above date that the contractor receives the notice to proceed, except to the extent that the delay in issuance of the notice to proceed results from the failure of the contractor to execute the contract and give the required performance and payment bonds within the time specified in the offer.

payment bonds within the time specified in the offer.

52.211-12 Liquidated Damages—Construction (Sep 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of: See Special Contract Requirements, Subsection 108.04.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

52.217-7 Option for Increased Quantity--Separately Priced Line Item (Mar 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within **90-days of contract award.** Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

52.223-3 Hazardous Material Identification and Material Safety Data (Jan 1997) Alternate I (July 1995).

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (if none, insert "None")	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government’s rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to—

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

52.225-11 Buy American Act—Construction Materials under Trade Agreements (Nov 2006)

(a) *Definitions.* As used in this clause--

"Caribbean Basin country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

"Designated country" means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark. Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, or United Kingdom);

(2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, or Trinidad and Tobago).

"Designated country construction material" means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.
"Domestic construction material" means--

(1) An unmanufactured construction material mined or produced in the United States; or
(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which non-availability determinations have been made are treated as domestic.

"Free Trade Agreement country construction material means" a construction material that--

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

"Foreign construction material" means a construction material other than a domestic construction material.
"Least developed country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

"United States" means the 50 States, the District of Columbia, and outlying areas.
"WTO GPA country construction material" means a construction material that--

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) *Construction materials*.

None

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Price;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[*List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.*]
[*Include other applicable supporting information.*]
[* *Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).*]

52.228-1 Bid Guarantee (Sept 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, *e.g.*, bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds—

(1) To unsuccessful bidders as soon as practicable after the opening of bids; and

(2) To the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be **20** percent of the bid price or $**3 million**, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within **10** days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

52.228-13 Alternative Payment Protections (July 2000)

(a) The Contractor shall submit one of the following payment protections:

Bid Bond_____

_____

(b) The amount of the payment protection shall be 100 percent of the contract price.

(c) The submission of the payment protection is required within **10** days of contract award.

(d) The payment protection shall provide protection for the full contract performance period plus a one-year period.

(e) Except for escrow agreements and payment bonds, which provide their own protection procedures, the Contracting Officer is authorized to access funds under the payment protection when it has been alleged in writing by a supplier of labor or material that a nonpayment has occurred, and to withhold such funds pending resolution by administrative or judicial proceedings or mutual agreement of the parties.

(f) When a tripartite escrow agreement is used, the Contractor shall utilize only suppliers of labor and material that signed the escrow agreement.

52.236-4 Physical Data (Apr 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by: N/A..

(b) Weather conditions: N/A.

(c) Transportation facilities: N/A.

(d) Hydrological data consisting of flow rates, water surface elevations, velocities, and hydraulic permit information may be inspected at Western Federal Lands Highway Division, Contracts Section, 610 East Fifth Street, Vancouver, Washington 98661.

(e) Geotechnical data, subsurface investigation information, and design data, consisting of the following, may be obtained upon request. Written requests are required and may be submitted to the Contracts Section at the above address, by FAX at (360) 619-7932, or by e-mail at *contracts@mail.wfl.fhwa.dot.gov*.

(1) Geotechnical Memorandum #22-07 -WY PLD-GRTE 710(1)
(2) Geotechnical Report #02-14 -2008 WY PRA-GRTE 13(8)
(3) Geotechnical Report #2-05 -WY PRA-GRTE 13(4)
(4) Geotechnical Report #27-97 -Spread Cr Pit
(5) Geotechnical Report #6-05 -WY PRA-GRTE 13(8)
(6) Geotechnical Report #8-02 -North Park Road Phase I
(7) Geotechnical Report #8-04 -North Park Road Phase II
(8) Bridge Inspection Report #1460-005P -Snake River Bridge #1
(9) Bridge Inspection Report #1460-010P -Snake River Bridge #2
(10) Snake River Bridge (existing) Rev. 05.28.1945

52.236-21 Specifications and Drawings for Construction (Feb 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription," of the Contracting Officer is intended and similarly the words "approved," "acceptable," "satisfactory," or words of like import shall mean "approved by," or "acceptable to," or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed."

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (*i.e.*, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) of this clause.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

Alternate II (Apr 1984). When record shop drawings are required and reproducible shop drawings are not needed, the following sentences shall be added to paragraph (g) of the basic clause:

Upon completing the work under this contract, the Contractor shall furnish in accordance with Subsection 104.03, the referenced sets of prints of all shop drawings as finally approved. These drawings shall show changes and revisions made up to the time the equipment is completed and accepted.

52.245-2 Government Property (Fixed-Price Contracts) (May 2004)

(a) Government-furnished property.

(1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property.

(1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any—

(i) Decrease or substitution in this property pursuant to paragraph (b)(1) of this clause; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property.

(1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract—

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon—

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) *Use of Government property.* The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property administration.

(1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) *Access.* The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) *Risk of loss.* Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) *Equitable adjustment.* When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for—

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) *Government property disposal*. Except as provided in paragraphs (i)(1)(i), (i)(2), and (i)(8)(i) of this clause, the Contractor shall not dispose of Government property until authorized to do so by the Plant Clearance Officer.

(1) Scrap (to which the Government has obtained title under paragraph (c) of this clause).—

(i) Contractor with an approved scrap procedure.—

(A) The Contractor may dispose of scrap resulting from production or testing under this contract without Government approval. However, if the scrap requires demilitarization or is sensitive property, the Contractor shall submit the scrap on an inventory disposal schedule.

(B) For scrap from other than production or testing the Contractor may prepare scrap lists in lieu of inventory disposal schedules (provided such lists are consistent with the approved scrap procedures), except that inventory disposal schedules shall be submitted for scrap aircraft or aircraft parts and scrap that—

(1) Requires demilitarization;
(2) Is a classified item;
(3) Is generated from classified items;
(4) Contains hazardous materials or hazardous wastes;
(5) Contains precious metals; or
(6) Is dangerous to the public health, safety, or welfare.

(ii) *Contractor without an approved scrap procedure*. The Contractor shall submit an inventory disposal schedule for all scrap.

(2) *Pre-disposal requirements*. When the Contractor determines that a property item acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, is no longer needed for performance of this contract, the Contractor, in the following order of priority:

(i) May purchase the property at the acquisition cost.

(ii) Shall make reasonable efforts to return unused property to the appropriate supplier at fair market value (less, if applicable, a reasonable restocking fee that is consistent with the supplier's customary practices).

(iii) Shall list, on Standard Form 1428, Inventory Disposal Schedule, property that was not purchased under paragraph (i)(2)(i) of this clause, could not be returned to a supplier, or could not be used in the performance of other Government contracts.

(3) Inventory disposal schedules.—

(i) The Contractor shall use Standard Form 1428, Inventory Disposal Schedule, to identify—

(A) Government-furnished property that is no longer required for performance of this contract, provided the terms of another Government contract do not require the Government to furnish that property for performance of that contract; and

(B) Property acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, that is no longer required for performance of that contract.

(ii) The Contractor may annotate inventory disposal schedules to identify property the Contractor wishes to purchase from the Government.

(iii) Unless the Plant Clearance Officer has agreed otherwise, or the contract requires electronic submission of inventory disposal schedules, the Contractor shall prepare separate inventory disposal schedules for—

(A) Special test equipment with commercial components;
(B) Special test equipment without commercial components;
(C) Printing equipment;
(D) Computers, components thereof, peripheral equipment, and related equipment;
(E) Precious Metals;
(F) Nonnuclear hazardous materials or hazardous wastes; or
(G) Nuclear materials or nuclear wastes.

(iv) Property with the same description, condition code, and reporting location may be grouped in a single line item. The Contractor shall describe special test equipment in sufficient detail to permit an understanding of the special test equipment's intended use.

(4) *Submission requirements*. The Contractor shall submit inventory disposal schedules to the Plant Clearance Officer no later than—

(i) Thirty days following the Contractor's determination that a Government property item is no longer required for performance of the contract;

(ii) Sixty days, or such longer period as may be approved by the Plant Clearance Officer, following completion of contract deliveries or performance; or

(iii) One hundred twenty days, or such longer period as may be approved by the Plant Clearance Officer, following contract termination in whole or in part.

(5) *Corrections*. The Plant Clearance Officer may require the Contractor to correct an inventory disposal schedule or may reject a schedule if the property identified on the schedule is not accountable under this contract or is not in the quantity or condition indicated.

(6) *Postsubmission adjustments*. The Contractor shall provide the Plant Clearance Officer at least 10 working days advance written notice of its intent to remove a property item from an approved inventory disposal schedule. Unless the Plant Clearance Officer objects to the intended schedule adjustment within the notice period, the Contractor may make the adjustment upon expiration of the notice period.

(7) Storage.—

(i) The Contractor shall store the property identified on an inventory disposal schedule pending receipt of disposal instructions. The Government's failure to provide disposal instructions within 120 days following acceptance of an inventory disposal schedule might entitle the Contractor to an equitable adjustment for costs incurred to store such property on or after the 121st day.

(ii) The Contractor shall obtain the Plant Clearance Officer's approval to remove Government property from the premises at which the property is currently located prior to receipt of final disposition instructions. If approval is granted, any costs incurred by the Contractor to transport or store the property shall not increase the price or fee of any Government contract. The storage facility shall be appropriate for assuring the property's physical safety and suitability for use. Approval does not relieve the Contractor of any liability under this contract for such property.

(8) Disposition instructions.—

(i) If the Government does not provide disposition instructions to the Contractor within 45 days following acceptance of a scrap list, the Contractor may dispose of the listed scrap in accordance with the Contractor's approved scrap procedures.

(ii) The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of Government property as directed by the Plant Clearance Officer. The Contractor shall remove and destroy any markings identifying the property as Government property prior to disposing of the property.

(iii) The Contracting Officer may require the Contractor to demilitarize the property prior to shipment or disposal. Any equitable adjustment incident to the Contracting Officer's direction to demilitarize Government property shall be made in accordance with paragraph (h) of this clause.

(9) *Disposal proceeds*. The Contractor shall credit the net proceeds from the disposal of Government property to the price or cost of work covered by this contract or to the Government as the Contracting Officer directs.

(10) *Subcontractor inventory disposal schedules*. The Contractor shall require a subcontractor that is using property accountable under this contract at a subcontractor-managed site to submit inventory disposal schedules to the Contractor in sufficient time for the Contractor to comply with the requirements of paragraph (i)(4) of this clause.

(j) Abandonment of Government property.—

(1) The Government will not abandon sensitive Government property without the Contractor's written consent.

(2) The Government, upon notice to the Contractor, may abandon any nonsensitive Government property in place at which time all obligations of the Government regarding such abandoned property shall cease.

(3) The Government has no obligation to restore or rehabilitate the Contractor's premises under any circumstances; however, if Government-furnished property is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) *Communications.* All communications under this clause shall be in writing.

(l) *Overseas contracts.* If this contract is to be performed outside of the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

52.245-9 Use and Charges (Aug 2005)

(a) *Definitions*. As used in this clause:

"Acquisition cost" means the acquisition cost recorded in the Contractor's property control system or, in the absence of such record, the value attributed by the Government to a Government property item for purposes of determining a reasonable rental charge.

"Government property" means all property owned by or leased to the Government or acquired by the Government under the terms of the contract. It includes both Government-furnished property and contractor-acquired property as defined in FAR 45.101.

"Real property" means land and rights in land, ground improvements, utility distribution systems, and buildings and other structures. It does not include foundations and other work necessary for installing special tooling, special test equipment, or equipment.

"Rental period" means the calendar period during which Government property is made available for nongovernmental purposes.

"Rental time" means the number of hours, to the nearest whole hour, rented property is actually used for nongovernmental purposes. It includes time to set up the property for such purposes, perform required maintenance, and restore the property to its condition prior to rental (less normal wear and tear).

(b) *Use of Government property*. The Contractor may use the Government property without charge in the performance of—

(1) Contracts with the Government that specifically authorize such use without charge;

(2) Subcontracts of any tier under Government prime contracts if the Contracting Officer having cognizance of the prime contract—

(i) Approves a subcontract specifically authorizing such use; or

(ii) Otherwise authorizes such use in writing; and

(3) Other work, if the Contracting Officer specifically authorizes in writing use without charge for such work.

(c) *Rental*. If granted written permission by the Contracting Officer, or if it is specifically provided for in the Schedule, the Contractor may use the Government property (except material) for a rental fee for work other than that provided in paragraph (b) of this clause. Authorizing such use of the Government property does not waive any rights of the Government to terminate the Contractor's right to use the Government property. The rental fee shall be determined in accordance with the following paragraphs.

(d) General.

(1) Rental requests shall be submitted to the Administrative Contracting Officer (ACO), identify the property for which rental is requested, propose a rental period, and compute an estimated rental charge by using the Contractor's best estimate of rental time in the formulae described in paragraph (e) of this clause.

(2) The Contractor shall not use Government property for nongovernmental purposes, including Independent Research and Development, until a rental charge for real property, or estimated rental charge for other property, is agreed upon. Rented property shall be used only on a non-interference basis.

(e) Rental charge.—

(1) Real property and associated fixtures.

(i) The Contractor shall obtain, at its expense, a property appraisal from an independent licensed, accredited, or certified appraiser that computes a monthly, daily, or hourly rental rate for comparable commercial property. The appraisal may be used to compute rentals under this clause throughout its effective period or, if an effective period is not stated in the appraisal, for one year following the date the appraisal was performed.

The Contractor shall submit the appraisal to the ACO at least 30 days prior to the date the property is needed for nongovernmental use. Except as provided in paragraph (e)(1)(iii) of this clause, the ACO shall use the appraisal rental rate to determine a reasonable rental charge.

(ii) Rental charges shall be determined by multiplying the rental time by the appraisal rental rate expressed as a rate per hour. Monthly or daily appraisal rental rates shall be divided by 720 or 24, respectively, to determine an hourly rental rate.

(iii) When the ACO believes the appraisal rental rate is unreasonable, the ACO shall promptly notify the Contractor. The parties may agree on an alternative means for computing a reasonable rental charge.

(iv) The Contractor shall obtain, at its expense, additional property appraisals in the same manner as provided in paragraph (e)(1)(i) if the effective period has expired and the Contractor desires the continued use of property for nongovernmental use. The Contractor may obtain additional appraisals within the effective period of the current appraisal if the market prices decrease substantially.

(2) *Other Government property*. The Contractor may elect to compute the rental charge using the appraisal method described in paragraph (e)(1) of this clause subject to the constraints therein or the following formula in which rental time shall be expressed in increments of not less than one hour with portions of hours rounded to the next higher hour: The rental charge is calculated by multiplying 2 percent of the acquisition cost by the hours of rental time, and dividing by 720.

(3) *Alternative methodology*. The Contractor may request consideration of an alternative basis for computing the rental charge if it considers the monthly rental rate or a time-based rental unreasonable or impractical.

(f) Rental payments.

(1) Rent is due 60 days following completion of the rental period or as otherwise specified in the contract. The Contractor shall compute the rental due, and furnish records or other supporting data in sufficient detail to permit the ACO to verify the rental time and computation. Payment shall be made by check payable to the Treasurer of the United States and sent to the contract administration office identified in this contract, unless otherwise specified by the Contracting Officer.

(2) Interest will be charged if payment is not made by the date specified in paragraph (f)(1) of this clause. Interest will accrue at the "Renegotiation Board Interest Rate" (published in the *Federal Register* semiannually on or about January 1st and July 1st) for the period in which the rent is due.

(3) The Government's acceptance of any rental payment under this clause, in whole or in part, shall not be construed as a waiver or relinquishment of any rights it may have against the Contractor stemming from the Contractor's unauthorized use of Government property or any other failure to perform this contract according to its terms.

(g) *Use revocation*. At any time during the rental period, the Government may revoke nongovernmental use authorization and require the Contractor, at the Contractor's expense, to return the property to the Government, restore the property to its pre-rental condition (less normal wear and tear), or both.

(h) *Unauthorized use*. The unauthorized use of Government property can subject a person to fines, imprisonment, or both, under 18 U.S.C. 641.

TRANSPORTATION ACQUISITION REGULATIONS CONTRACT CLAUSES

1252.223-71 Accident and Fire Reporting (Apr 2005)

(a) The Contractor shall report to the Contracting Officer any accident or fire occurring at the site of the work, which causes:

(1) A fatality or as much as one lost workday on the part of any employee of the Contractor or any subcontractor at any tier;

(2) Damage of $1,000 or more to Government-owned or leased property, either real or personal;

(3) Damage of $1,000 or more to Contractor or subcontractor owned or leased motor vehicles or mobile equipment; or

(4) Damage for which a contract time extension may be requested.

(b) Accident and fire reports required by paragraph (a) above shall be accomplished by the following means:

(1) Accidents or fires resulting in a death, hospitalization of five or more persons, or destruction of Government-owned or leased property (either real or personal), the total value of which is estimated at $100,000 or more, shall be reported immediately by telephone to the Contracting Officer or his/her authorized representative and shall be confirmed by telegram or facsimile transmission within 24 hours to the Contracting Officer. Such telegram or facsimile transmission shall state all known facts as to extent of injury and damage and as to cause of the accident or fire.

(2) Other accident and fire reports required by paragraph (a) above may be reported by the Contractor using a state, private insurance carrier, or Contractor accident report form which provides for the statement of: (i) The extent of injury; and (ii) The damage and cause of the accident or fire. Such report shall be mailed or otherwise delivered to the Contracting Officer within 48 hours of the occurrence of the accident or fire.

(c) The Contractor shall assure compliance by subcontractors at all tiers with the requirements of this clause.

1252.228-73 Notification of Miller Act Payment Bond Protection (Apr 05)

This notice clause shall be inserted by first tier subcontractors in all their subcontracts and shall contain information pertaining to the surety that provided the payment bond under the prime contract.

(a) The prime contract is subject to the Miller Act, (40 U.S.C. 3131 et al), under which the prime contractor has obtained a payment bond. This payment bond may provide certain unpaid employees, suppliers, and subcontractors a right to sue the bonding surety under the Miller Act for amounts owned for work performed and materials delivery under the prime contract.

(b) Persons believing that they have legal remedies under the Miller Act should consult their legal advisor regarding the proper steps to take to obtain these remedies. This notice clause does not provide any party any rights against the Federal Government, or create any relationship, contractual or otherwise, between the Federal Government and any private party.

(c) The surety which has provided the payment bond under the prime contract is:

_____
(Name)

_____
(Street Address)

_____
(City, State, Zip Code)

_____
(Contact & Tel. No.)

General Decision Number: WY080008 02/08/2008 WY8

Superseded General Decision Number: WY20070008

State: Wyoming

Construction Type: Highway

Counties: Albany, Big Horn, Campbell, Carbon, Converse, Crook, Fremont, Goshen, Hot Springs, Johnson, Lincoln, Niobrara, Park, Platte, Sheridan, Sublette, Sweetwater, Teton, Uinta, Washakie and Weston Counties in Wyoming.

Modification Number	Publication Date
0	02/08/2008

SUWY2007-003 05/07/2007

	Rates	Fringes
Carpenter	$ 17.91	2.30
Concrete Finisher	$ 16.49	.06
Ironworker	$ 28.42	3.36
Laborer (Excluding Tunnel & Underground Work)		
Group 1	$ 13.00	1.24
Group 2	$ 15.00	1.24

LABORER CLASSIFICATIONS(Excluding Tunnel and Underground Work)

GROUP 1: Axman; Hand Faller; Bin Wall Installer Laborer; Concrete Worker (Wet or Dry); Concrete Worker (Curing and Drying); Dumpman; Erector and Installer - includes the installation and erection of fences, snow fences, guardrails, median rails, median posts, signs, and right of way marker; Flag Person (Traffic Control); Form stripper; Form Setter Laborer (Paving); General Laborer; Gunite Laborer; Heater Tender; Landscape Laborer; Material Handler (Lumber, Rods, Cement, Concrete); Nozzleman (Air and Water); Pilot Car Driver; Pipe setter Laborer (Non-metallic); Pipe setter Laborer (Corrugated); Pre-Watering, pre-setting, and pre-irrigation (all work); Riprap Man; Sandblaster Pot Tender; Signal man, grade concrete, etc; Scissor man or hopper man; Stake Jumper for equipment; Tar and Asphalt Pot Tender; and Wrecking and Demolition Crew.

GROUP 2: Asphalt Raker and Tamper; Bin Wall Installer, Cement Mason Tender; Chuck Tender; Concrete Saw; Form Setter (Paving); Gunite Nozzleman; Hand Operated Vibratory Roller; High Scaler (Using air tools from bosn chair, swing stage lift belt, or block and tackle shall receive $.20 per hour more than the classified rate); Landscaper; Maintainer (Traffic Control); Mortar man on stone riprap; Operator of pneumatic, electric gas tamper, and similar mechanical tools; Pipe setter (corrugated, culvert pipe, sectional multi-plate and similar type); Pipe setter, Pipelayer (non-metallic); Pipe wrapper; Powderman tender; Power type concrete buggy (Push ride); Power saw operator (clearing); Vibrator-concrete; Jackhammer and pavement breaker; Sandblaster nozzleman; Sewer pipe installer (non-metallic), clay, concrete, etc. (caulker, collarman, jointer, mortarman, rigger, jacker) Laborer (Tunnel & Underground Work)

Group 1	$ 14.18	.69
Group 2	$ 16.21	1.43

LABORER CLASSIFICATION - TUNNEL AND UNDERGROUND WORK

GROUP 1: Powderman and Blaster; Wagon Drill; Air-Trac; Diamond and Other Drills for Blasting Powder or Grouting.

GROUP 2: Miner (Driller); Machineman; Timberman; Steelman; Drill Doctor; Form Setter and Mover; Spader; Tuggers; Spilling and/or Caisson Worker; Powderman; Jackhammerman; Finisher.

Line Construction (Underground Communication Work & All Motor Traffic Controlling, Street & Highway Lighting)

Cable Splicer	$ 29.14	9.77
Groundman	$ 24.70	12.13
Line Equipment Operator (Electrical Work)	$ 25.62	8.45
Lineman	$ 37.66	9.30

Painter		
Brush & Spray	$ 17.02	3.00

Power Equipment Operator		
Group 1	$ 15.02	4.72
Group 2	$ 19.45	2.85
Group 3	$ 20.86	4.72
Group 4	$ 19.82	4.75

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

ALL ELECTRICAL WORK IS EXCLUDED. FOR ELECTRICAL WORK, USE EQUIPMENT OPERATOR CLASSIFICATION LISTED UNDER LINE CONSTRUCTION.

GROUP 1: Auger Machine Operator (Post Holes, etc.); Air Compressor (Over 315 cu. ft. cap.); Backhoe (to 1.5 cu. yds.); Batch Bin Weighman, Scissorman, or Hopperman; Brakeman; Broom Operator (Self-Propelled); Cableway Signalman (Bellboy); Chip Spreader Operator; Concrete Saw (Self-Propelled); Conveyor Belt Operator; Crusher Oiler; Front End Loader (to 1.5 cu. yds.); Form Grader Operator; Fork Lift and Lumber Stacker; Joint Machine Operator; Longitudinal Float Operator; Mixer, Operator Concrete (under 1 yard); Oiler, Utility; Power Loader, belt and buckle type; Pump Operator; Roller Operator, Self-Propelled, (Pneumatic, rubber tired, sheep foot, vibratory or combination type); Screed Operator; Screening Plant Operator; Tire Repairman; Tractor Operator: Farm, crawler, or wheel type (60 horsepower drawbar or less) with or without use of power attachments).

GROUP 2: Air Compressor, two or more machines or tunnels, shafts, raises, or Plant Operator; Asphalt Plant Operator; Backhoe (1.5 cu. yds. to 3.5 cu. yds.); Bituminous Laydown Machine Operator; CMI Machine (Auto Grader); Concrete Batch Plant Operator; Concrete Finish Machine Operator; Concrete Multi Blade Span Saw (Hunt Process or Similar); Concrete Spreader and Paver Operator; Crusher Operator; Drilling Machine, Intergrated (Core, Rotary, Caisson, Diamond); Elevating Grader Operator; Front End Loader (1.5 cu. yds. to 3.5 cu. yds.); Hydro-type Crane to 50 Tons; Mixer Operator, Base Course Pugmill Type I; Mixer Operator, Concrete (Over one yard); Motor Patrol Operator (All, excluding finish); Mucking Machine Operator (All Types); Mulching Machine Operator; Oiler (Crane and Shovels); Pavement Breaker, Hydro-Tamper and similar type machines; Pumpcrete Operator; Roller Operators (Tandem Steel Wheel, three axle or three wheel); Scraper Equipment (all types); Scraper Equipment (Multiple units, fifteen cents per hour additional per unit); Shovels, Draglines, Cranes, Piledrivers and Truck Mounted Cranes (Mfg. rating: up to 3.5 cu. yds., or 50 tons, all attachments); Shuttle Car Operator; Subgrade Machine Operator (power); Tractor Operators: Cold Milling, all with use of power attachments and including pushcat, dozer, tournadozer, etc. (the use of power attachments shall not include disking, pulling of rollers or similar unskilled actions); Trenching Machine Operator(Excludes Electrical Work); Wash Plant Operator; and Welder.

GROUP 3: Cableway Operator; Crane, 90 Tons and Over, (Whirley, gantry, stiffleg, overhead and traveling type); Mixer Operator, (Dual Drum); Shovels, Draglines, Piledrivers and Truck Mounted Cranes (Mfg. rating: 7 cu. yds. and over, or 90 tons and over, all attachments).

GROUP 4: Hoist Operator (Two or more drums, shafts, or raises); Motor Patrol Operator (Finish); Heavy Duty Mechanic, Machine Doctor; Shovels, Draglines, Cranes, Piledrivers, and Truck Mounted Cranes (Mft. rating: 3.5 cu. yds. to 7 cu. yds., or 50 to 90 tons, all attachments); Wheel Excavator Operator; and Front End Loader (3.5 cu. yds. to 7 cu. yds).Truck Driver

Group 1.....	$ 15.25	1.85
Group 2.....	$ 16.55	1.85
Group 3.....	$ 16.87	3.18

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-Up Truck Driver (When used for hauling); Dump Truck Driver (To and Including 7 cu. yds.); Snow Plow Truck Driver (the cu. yd. rate of the truck); Gravel Spreader; Flat Rack Material Truck Driver (Less than 2 Tons); Gang Truck Driver; Stringing Truck Driver (Single Axle Type); Water Truck Driver (2,500 Gal or Less); Fuel Service Truck Driver; Greaseman, Tireman, Servicemen; Oil Distributor Truck Driver (2,500 Gal. or Less).

GROUP 2: Dump Truck Driver (Over 7 cu. yds. to and including 13 cu. yds.); Flat Rack Material Truck Driver (Over 2 Tons to 5 Tons); Utility Winch Truck Driver; "A" Frame Truck Driver; Material Checker; Transit Mix or Wet Mix Truck Driver; Power Broom Driver; Water Truck Driver (Over 2,500 Gal. to and including 3,600 Gal.); Oil Distributor Truck Driver (Over 2,500 Gal. to and including 3,600 Gal.)

GROUP 3: Dump Truck Driver (Over 13 cu. yds. to and including 45 cu. yds.); Low Boy and Tandem Axle Float Driver; Multiple Axle Type Truck: Semi; Winch Trailer Truck Driver; Water Truck Driver (Over 3,600 Gal.); Oil Distributor Truck Driver (Over 3,600 Gal.); Truck Mechanics; and Flat Rack Material Truck Driver (Over 5 Tons).

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board).

Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

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ATTENTION

The following Special Contract Requirements (SCRs) are only a portion of the specifications for this project. These SCRs amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03. The FP-03 Metric Units is a separately published book. In order to understand the solicitation properly you need to have the FP-03 Metric Units as well as this packet. Pay particular attention to the provisions of Subsection 104.04 in the FP-03. This Subsection explains how each of the many contract documents fit together.

If you would like to view the FP-03 Metric Units electronically, go to: http://www.wfl.fha.dot.gov/design/specs/fp03.htm

If you would like a printed copy of the FP-03 U.S. Metric Units, contact the:

Contracts Section
Federal Highway Administration
Western Federal Lands Highway Division
610 East Fifth Street
Vancouver, WA 98661
Phone: 360.619.7520
Fax: 360.619.7520
E-mail: contracts@mail.wfl.fha.dot.gov

(printed copies of the FP-03 will be distributed to the successful bidder)

SCRs Table of Contents
Project: WY PRA-GRTE 13(4), 13(8), & WY PLD-GRTE 710(1), North Park Road (Phase II), North Park Road (Snake River Bridge), & Grand Teton Park Pathways (Phase I)

Delete the table on page iv and substitute the following:

SI[(1)] (METRIC) TO U.S. CUSTOMARY CONVERSION FACTORS (approximate)				
Symbol	**When You Know**	**Multiply By**	**To Find**	**Symbol**
		LENGTH		
µm	micrometers	3.9×10^{-5}	inches	in
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.31	cubic feet	ft^3
m^3	cubic meters	1.308	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.1023	short tons (2000 lb)	T
		TEMPERATURE (exact)		
ºC	Celsius temperature	1.8C +32	Fahrenheit temperature	ºF
		ILLUMINATION		
lx	lux	0.0929	foot-candles	fc
cd/m^2	$candela/m^2$	0.2919	foot-Lamberts	fl
		MISCELLANEOUS		
J	joule	0.7376	foot·poundforce	ft·lbf
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

(1) SI is the symbol for the International System of Units.
Appropriate rounding should be made to comply with Section 4 of ASTM E 380.

SCRs TABLE OF CONTENTS

SPECIAL CONTRACT REQUIREMENTS (SCRs)

The following Special Contract Requirements amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Metric Units.

DIVISION 100 GENERAL REQUIREMENTS

DIVISION 150 PROJECT REQUIREMENTS

DIVISION 200 EARTHWORK

DIVISION 250 STRUCTURAL EMBANKMENTS

DIVISION 300 AGGREGATE COURSES

DIVISION 400 ASPHALT PAVEMENTS AND SURFACE TREATMENTS

DIVISION 550 BRIDGE CONSTRUCTION

DIVISION 600 INCIDENTAL CONSTRUCTION

DIVISION 700 MATERIAL

03M06/22/07

Section 101.— TERMS, FORMAT, AND DEFINITIONS

101.04 Definitions. Amend as follows:

Delete the text of these definitions and substitute the following:

Award — The written acceptance of an offeror's proposal by the C.O.

Bid — When used in a project package, carries the same meaning as Offer.

Bidder — When used in a project package, carries the same meaning as Offeror.

Bid Guarantee — A form of security assuring that the offeror will not withdraw an offer within the period specified for acceptance and will execute a written Task Order and furnish required bonds.

Bid Schedule — The prepared schedule included with the offer forms, containing the estimated quantities of pay items for which unit prices are requested.

Contract — The written agreement between the Government and the Contractor setting forth the obligations of the parties for the ordering of, performance of, and payment for, the prescribed work. Refers to both the Basic Contract and the Task Orders.

Contract Time — The specified time allowed for completion of all Task Order work.

Notice to Proceed — Written notice to the contractor to begin the Task Order work.

Pay Item — A specific item of work for which a unit price is provided in the Task Order.

Payment Bond — The security executed by the contractor and surety or sureties and furnished to the Government to ensure payments as required by law to all persons supplying labor or material according to the Task Order.

Performance Bond — The security executed by the contractor and surety or sureties and furnished to the Government to guarantee completion of the Task Order work.

Project — The specific section of the highway or other property on which construction is to be performed under the Task Order.

Solicitation — The complete assembly of documents (whether attached or incorporated by reference) furnished to prospective offeror(s).

Surety — An individual or corporation legally liable for the debt, default, or failure of a contractor to satisfy a Task Order obligation.

Work — The furnishing of all labor, material, equipment, and other incidentals necessary to successfully complete the project according to the Task Order.

Add the following:

Basic Contract — The contract Indefinite Delivery, Indefinite Quantity (IDIQ) which is a written agreement between the Government and the Contractor(s) setting forth the general obligations of the parties for the ordering of, performance of, and payment for, the work to be performed under the subsequent Task Orders.

Offer — A written proposal by an offeror to perform work at a proposed price.

Offeror — Any individual or legal entity submitting an offer.

Task Order — An order for a specific level of work that may or may not be related to one or more projects.

Park – Grand Teton National Park lands or the administrative entity.

101.04 Definitions. Add the following:

Holidays — Holidays occur on the following days:

- 1st day of January - New Year's Day
- 3rd Monday of January - Martin Luther King, Jr. Day
- 3rd Monday in February - Presidents' Day
- Last Monday in May - Memorial Day
- 4th day of July - Independence Day
- July 24th – Utah Pioneer Days
- 1st Monday in September - Labor Day
- 2nd Monday in October - Columbus Day
- 11th day in November - Veterans Day
- 4th Thursday in November - Thanksgiving Day
- 25th day in December - Christmas Day
- Other days declared holidays by the Congress or the President
- If a holiday falls on a Saturday, the preceding Friday is also a legal holiday. If a holiday falls on a Sunday, the Monday following is also a legal holiday.

SE/P_{75} Index (SEP) — SE/P_{75} Index (SEP) is a measure of a material's ability to perform based on the quality and quantity of fines present. The quality is represented by the sand equivalent (SE) and quantity is represented by the percent passing the 75-µm (P_{75}). The SEP is computed as follows:

For an SE ≥ 29, $SEP = \frac{SE}{P_{75} + 25}$

For an SE < 29, $SEP = \frac{SE + 4}{SE + P_{75}}$

Where:

SE = Plastic fines in graded aggregates and soils by using the sand equivalent test AASHTO T 176, Alternate Method No.2, Referee Method

P_{75} = Material finer than 75-µm Sieve in mineral aggregates by washing AASHTO T 11

03M06/22/07

Section 102.— BID, AWARD, AND EXECUTION OF CONTRACT

102.02 Preparation of Bids. Delete the Subsection title, text of the first paragraph, and substitute the following:

Follow the requirements of FAR Clause 52.215-1 Instructions to Offerors - Competitive Acquisition.

102.03 Bid Guarantee. (a) General. Delete the text of the first sentence and substitute the following:

> Submit a bid guarantee of 20 percent of the total bid amount for all schedules or $3 million, whichever is less.

102.05 Public Opening of Bids. Delete this Subsection.

102.05A Contract Award. (Added Subsection.)

This contract contains options for additional work. Acceptable offers must include pricing for Base, Option A, Option B, and Option C schedules. The base schedule will be awarded upon execution of the contract. Any exercise of Option A, Option B, Option C or all will be made any time within 90 days from the contract award date.

The apparent low offeror will be determined by the lowest offer for the total of Base, Option A, Option B, and Option C schedules. The successful offeror will be awarded all pay items in the Base schedule. The contract amount will be the total for the Base schedule. If the Government exercises Option A, Option B, Option C or all; the contract amount will increase by the total for Option A schedule, Option B schedule, Option C schedule, or all schedules.

102.06 Performance and Payment Bonds. Delete the text of the first paragraph and substitute the following:

Follow the requirements of FAR Clause 52.228-15 Performance and Payment Bonds – Construction. Furnish a performance bond and a payment bond each in the penal amount of 100 percent of the original task order price.

Section 103.—SCOPE OF WORK

103.01 Intent of Contract. Add the following:

Additional work on sites within or in the vicinity of the project may be requested by the CO. Such work generally will be in response to natural disasters. This paragraph does not affect the respective responsibilities of the parties under Subsection 107.06. Provide cost proposals and perform work as ordered by the CO.

103.06 Issue Resolution. (Added Subsection).

Resolve project issues at the lowest authorized level and in the most expedient manner possible. Escalate unresolved issues to the next higher level in a timely manner to avoid adverse impacts to costs, risks, or time. Either party may request an issue be escalated. Submit requests in writing. Upon the request of either party, both parties must escalate the issue. An exception to escalating an issue may be observed when both parties agree extra time is needed for the development of facts.

Decision making is encouraged to be made at the lowest authorized level. Recommendations, options, and ideas by all team members are requested. Decisions made at the lowest level possible will be supported by all management levels. Countermands of decisions will not be permitted, except where there is a conflict with code, regulation, law, the contract, or a change of critical facts or information which causes a re-evaluation of the resolution. Support of a countermand by the original decision team is critical. All Contractor and Government team members must understand why the change is necessary and must be able to support it.

03M06/22/07

Section 104.— CONTROL OF WORK

104.03 Specifications and Drawings. Amend as follows:

(b) Specific requirements for concrete and miscellaneous structures. Delete paragraph **(1)***(c)* and substitute the following:

(c) Forms and falsework for cast-in-place concrete structures less than or equal to 1800 millimeters in height;

Add the following paragraph:

(c) As-built working drawings. Furnish two as-built working drawings. The Government will provide two sets of contract drawings to be used exclusively for recording the as-built details of the project. Use red pencil or red ink to record the information described below.

Note all additions or revisions to the location, character, and dimensions of the prescribed work shown on the contract drawings. Line out all details shown that are not applicable to the completed work. Check off details shown that were incorporated into the completed work without change.

Retain the drawings at the project site and, as work progresses, continuously update them to reflect the as-built details. Upon request, make the drawings available to the CO to review for compliance with these specifications.

As a minimum, show the following types of changes on the as-built drawings:

(1) Typical section(s)

(a) Revisions in dimensions; and

(b) Revisions in materials.

(2) Plan and profile

(a) Plan

(1) Revisions to the alignment;

(2) Changes in the construction limits;

(3) Revisions in location, type, and grade of road approaches;

(4) Location, size, and type of underdrains;

(5) Skew of culverts;

(6) Channel changes;

(7) Location of monuments and permanent references;

(8) Elevations for all aerial and underground crossings of utilities; and

(9) Location, length, and type of fencing.

(b) Profile

(1) Revisions to grades, elevations, and stationing of intersection PIs;

(2) Equations;

(3) Culvert diameter, length, type, and stationing;

(4) Length of culvert extension. and length of existing culvert;

(5) Location, length, stationing, and type of retaining walls; and

(6) Location, length, stationing, and end treatment of guardrail.

(3) Bridge

(a) Stationing of bridge ends;

(b) Revisions to footing and seal elevations;

(c) Pile length, size, type, and tip elevation; and

(d) Any changes in plan or dimensions including any major changes in reinforcing.

(4) Miscellaneous

(a) Revisions to parking areas or turnouts; and

(b) Final location, type and length of curbs, sidewalks, etc.

(5) Utilities

(a) Location of located utilities; and

(b) Modified and relocated utilities, including vaults, conduits, and other appurtenances; and

(c) Light poles.

Furnish the as-built working drawings to the CO before the final inspection. Correct all details found during the final inspection that are not shown on the as-built drawings and return to the CO within 5 working days.

104.04 Coordination of Contract Documents. Delete the text of this Subsection and substitute the following:

The FAR, TAR, Basic Contract, special contract requirements, plans, and standard specifications are contract documents. A requirement in one document is binding as though occurring in all the contract documents. The contract documents are intended to be complementary and to describe and provide for a complete contract. In case of discrepancy, calculated and shown dimensions govern over scaled dimensions. The contract documents govern in the following order:

(a) Federal Acquisition Regulations;

(b) Transportation Acquisition Regulations;

(c) Basic IDIQ Contract;

(d) Special Contract Requirements (SCRs);

(e) Plans; and

(f) Standard specifications.

03M07/25/06

Section 105.— CONTROL OF MATERIAL

105.02 Material Sources. Amend as follows:

Add the following:

Unless a source is listed as mandatory, the decision to use an identified source is solely that of the Contractor.

(a) Government-provided sources. Add the following to the third paragraph:

Do not perform aggregate source quality tests listed in the Sampling and Testing Requirements Table of other Sections when using Government-provided sources.

Add the following:

Government-provided sources for this project are identified as follows:

(1) Government-provided mandatory sources.

There are no Government-provided mandatory sources.

(2) Government-provided optional sources.

Material for use as borrow, riprap, and in the production of aggregates, under Sections 204, 209, 251, 252, 255, 301, 308, 309, 401, 403, 404, 552, 601, and 705 may be obtained from the Spread Creek Pit.

Segregate or assure that stone material obtained from the stockpile at Spread Creek Pit remains available in quality and dimension for work under Sections 251, 252, and 255. Use the following order of precedence for availability planning:

- All work under Item 25501-1000
- All work under Item 25125-0000
- Work under Item 25501-5000 on Grand Teton Park Pathways at approximately 6+390 to 6+415.

There is not a Government-provided optional source for Item 25101-6000.

All imported material from Contractor-located sources must be certified by the Government to be free from noxious weeds or invasive plant materials and other deleterious material before entering the Park at the start of each construction season. To determine if a potential material source meets the weed-free requirement, submit a list of sources to be inspected by the Government. In addition to the source name and location, submit potential mitigative measures to make the source weed-free. The

Government will furnish an inspection report, weather permitting, within 21 days of a submission of potential material sources, listing the status of the source and any mitigative measures that would need to be accomplished before use. Coordinate with the CO on specific dates.

Spread Creek Pit is a gravel deposit located approximately 3 kilometers east of Highway 26/89/187 and approximately 42 kilometers from Jackson, Wyoming, at MP 26. The Pit site is located on lands administrated by the USFS, Bridger-Teton National Forest, in sections 14 and 15 of T44N, R114W as shown on the plans. The Special Use Permit for this source is contained in Section H, Permits.

If the Contractor elects to obtain material from, or stockpile materials at the Spread Creek Pit, the following restrictions apply:

(a) Operation in the pit is allowed between the hours of 6 a.m. and 9 p.m. beginning June 1 through October 31. Operation in the pit is not permitted during the first three weekends of the fall hunting season from 9 p.m. Friday evening to 7 a.m. the following Monday.

(b) The existing Spread Creek Access Road gate at the Eastside Highway Junction must be maintained in the opened position and locked in-place.

(c) Protect and maintain the existing silt fence. Remove silt and sediment when material exceeds one-third of the silt fence height, or as needed for proper functioning.

(d) Do not delay traffic for more 30 minutes along any portion of the Spread Creek Access Road.

(e) Residential camping will not be allowed in the National Forest or Park, except as provided in Subsection 107.12. A temporary construction office, storage trailers, and night watchman facilities will be allowed. Provide portable toilets and other temporary sanitation facilities that are bear-resistant in accordance with Subsection 107.08.

(f) Submit an operation plan for approval by the CO. Show locations of service roads, material stockpiles, crushers and plant locations, and how public access will be maintained along the Spread Creek Access Road.

(g) Prior to beginning work in the pit, stake the material source limits for approval by the CO. Mark the perimeter of the boundary limits by providing 2.1 meter long metal T-posts at 30-meter intervals. Provide US Commercial Standard T-posts painted green with anchor plates weighing a minimum of 1.98 kg/m. Do not measure T-posts for direct payment. Survey pit limits according to Subsection 152.02**(o)**.

(h) Clean all equipment according to Subsection 107.11**(a)**.

(i) Conserve stripped topsoil and stockpile at locations shown in the plans. Do not stockpile topsoil more than 1.0 meter deep.

(j) Begin extracting materials for production of aggregates and select borrow at the eastern most excavation limit as defined by points 1, 2, & 3 shown on the plans. Progress the excavation in a westerly direction. Maintain an extraction face that is perpendicular to the baseline. Excavate to the limits as shown on the plans. Mine gravel deposits to the maximum depth of the deposits or to the depth shown in the plans before expanding the pit laterally. Seepage is anticipated along the southern margins of the extraction area. Do not progress outside of the extraction area unless approved in writing by the CO.

(k) Contain all operations within the extraction and staging and stockpile areas.

(l) Maintain access through the area at all times during work at pit site.

(m) Do not use the existing Forest Service access road located south of the Spread Creek Pit site.

(n) The contractor is advised that clayey gravel seams and lenses occur throughout the pit; clayey material mixed with the gravel deposit will plug screens and stick to aggregate. If required wash required material by means of a sandscrew or other approved method(s) to remove fines from the aggregate.

(1) At least seven days prior to beginning washing operations, submit a washing plan for approval by the CO. As a minimum, the plan should address the following:

(i) Water management, such as methods and plans for pumping, transporting, distributing, and water conservation.

(ii) Mechanism for metering flow rates at the point of distribution.

(iii) Settling pond final location, size, and type.

(iv)Protect surface flows and nearby stream in accordance to the Storm Water Pollution Prevention Plan contained in Section I of the Special Contract Requirements

(2) Water for washing may be obtained from Spread Creek at the Spread Creek Pit site if the Contractor elects to use the Spread Creek Pit. Water may be pumped from the creek to a holding tank. Permits for obtaining water are contained in Section H of the Special Contract Requirements.

Alternate settling pond dimensions from those shown in the plans are acceptable. Submit alternate pond dimensions with washing plan. Ponds must be able to accommodate operational washwater, siltation, 25-year/24- hour maximum precipitation for the area, and 0.6 meters of freeboard. Provide an

overflow ditch for each pond. Direct overflow ditches to extraction area or construct an overflow pond. Clean pond of settled material (silt and sediment) when material exceeds one-third of the freeboard height or as needed for proper functioning, and prior to decommissioning. Dispose of settled material removed from ponds according to Subsection 105.02**(p)**.

(3) All washing activities are restricted to Spread Creek pit.

(o) Reduce all rocks 0.6 meters or less in diameter and use for crushed materials. Stockpile in an approved location or utilize under Item 25125-000. Bury any larger rocks that do not meet requirement of Subsection 705.08 in the extraction area of the pit after pit operations are complete.

(p) Reclaim the extraction area upon the completion of crushing. Use excess and unsuitable materials from Spread Creek Pit to reshape the area shown on the plans and as provided in Section 622. Sculpt slopes to produce irregular contours. Provide reclamation plan for approval by the CO prior to beginning reclamation activities. Do not dispose any concrete, asphaltic material, or refuse at Spread Creek Pit.

(q) When reshaping of the pit is completed, place conserved topsoil evenly over the exposed subsoil to the extent that topsoil is available.

(r) Protect monitoring wells from disturbance at all times during pit operation and reclamation.

There is no charge for material taken from Spread Creek Pit for use on this project.

(b) Contractor-located sources. Add the following to the first paragraph:

Obtain permits and clearances according to Subsection 107.10.

Before delivery of select borrow, riprap, and aggregate from sources other than the Government-provided optional sources**,** ensure sterilization of any noxious weed seed. Do not stockpile the sterile material outside the project boundaries prior to delivery. These requirements maybe waived if the Contractor's source meets Park weed-free requirements.

Hauling of material through Yellowstone National Park or Grassy Lake Road (Route 117) is prohibited.

Sources on inholding lands within the Park boundaries will not be permitted.

105.04 Storing and Handling Material. Delete the text of the second paragraph and substitute the following:

Do not use private property for staging or storage without written permission of the owner or lessee. Furnish copies of all agreements. Secure all permits and clearances for use of the storage area and provide copies of the documents. Obtain permits according to Subsection 107.10. Restore all Government-provided storage sites to their original condition.

Use Government-provided storage site according to the following:

(a) The "Contractor Staging and Stockpiling Area" of Spread Creek Pit shown on the plans and designated by the CO may be used for stockpiling material, general construction staging and maintenance operations, crushing activities, and operating a mixing plant for hot asphalt concrete pavement. Use site according Subsection 105.02.

(b) The Lizard Creek Storage Area may be used for stockpiling material, general construction staging and maintenance operations and is located at 27+970 of North Park Road. Final staging area limits approved by the CO.

(c) Approved turnouts and other areas within the project boundaries may be used for operations, staging and storage for items such as culverts, geotextiles, temporary traffic control devices, and construction equipment.

Submit a request of all turnouts and any other areas proposed to be used as operations staging, storage, and turnarounds at least 21 days prior to use to the CO for approval.

Do not disturb the area beyond the approved staging areas.

The request will contain the following required information for each proposed site:

(1) Road name; (limited to North Park Road and Teton Park Road)

(2) Turnout or area name; (if applicable)

(3) Station;

(4) Side; (Left or Right)

(5) Items proposed to be staged and/or stored;

(6) Whether area is proposed as a turnaround site;

(7) Proposed area of use; (i.e. entire turnout, north half of turnout)

(8) Closure plan;

(9) Proposed dates of use.

Some areas may have date restrictions due to hunting season(s). Inquire locally for hunting season dates.

Do not store asphalt materials, aggregate, or borrow materials in these areas.

(d) The Snake River Pit staging areas as shown on the plans may be used for stockpiling material, asphalt production, excess material disposal, general construction staging and maintenance operations, and crushing activities, subject to the following restrictions:

(1) Use of staging areas is allowed beginning May 1 through October 31 of any year.

(2) Crushing activities and asphalt production are allowed between the hours of 6 a.m. and 9 p.m.

(3) Maintain the closure of the gate at the junction of the Snake River Pit access road with the North Park Road. Keep gate closed during non-work periods, and after 9 p.m. during use of the staging area.

(4) Residential camping will not be allowed on National Forest or Park Lands unless designated in Subsection 107.12. A temporary construction office, storage trailers, and night watchman facilities will be allowed at sites approved by the CO. Provide portable toilets and other temporary sanitation facilities that are bear-resistant and in accordance with Subsection 107.08.

(5) Before beginning work in the staging and waste areas, stake the boundary limits of the staging and waste areas for approval by the CO. Mark the perimeter of the staging boundary limits only by providing 2.1 meter long metal T-posts at 30-meter intervals. Provide US Commercial Standard T-posts painted green with anchor plates weighing a minimum of 1.98 kg/m. Do not measure T-posts for direct payment. Clearing of the upper staging (waste) area will be approved before clearing activities. Perform clearing activities under Item 622.

(6) Clean all equipment according to Subsection 107.11**(a)**. Additional cleaning of equipment is required after hauling and disposing of topsoil waste on North Park Road, Phase II, shown on the plans.

(7) Limit speed of vehicles and equipment within the staging areas and on Snake River Pit access road to 16 kilometers per hour.

(8) Submit a temporary traffic control proposal for the junction of the Snake River Pit access road with the North Park Road and Spread Creek Pit access road with Eastside Highway, at least 21 days prior to mobilization of crushing and asphalt production equipment into the staging area.

(9) Do not dispose any concrete, asphaltic material, or refuse at Snake River Pit.

03M01/02/08

Section 106.— ACCEPTANCE OF WORK

106.01 Conformity with Contract Requirements. Amend as follows:

Delete the second paragraph and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids. Use the 26th edition of the AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, and Appendix A and B of the Federal Lands Highway Field Materials Manual for this project. Use the modified AASHTO procedures for sampling and testing contained in Appendix B of the Federal Lands Highway Field Materials Manual; except, when a specified sampling or test method is not included in Appendix B, sample and test according to the referenced AASHTO test procedure. Appendix A of the Federal Lands Highway Field Materials Manual contains several sampling and testing methods which may be required for this project that are not found in AASHTO.

Delete the eighth paragraph and substitute the following:

Remove, repair, or replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted. Removing, repairing, or replacing work; providing temporary traffic control; and any other related work to accomplish conformity will be at no cost to the Government.

Add the following:

Obtain copies of the following documents by going to our webpage at:

http://www.wfl.fha.dot.gov/construction/cmr/

- Appendices A and B of the Federal Lands Highway Field Materials Manual, dated 02/10/97;
- Standard WFLHD Method of Test for Accelerated Weathering of Aggregate by Use of Dimethyl Sulfoxide (DMSO);
- Highway Research Board Bulletin No. 319, "The Humphres Method of Granular Soils", dated 1962;
- Form FHWA-1641, "Worksheet for Superpave Asphalt Concrete Mix Design, AASHTO R 35";
- Standard WFLHD Test Method for Determining Asphalt Content in Asphalt Paving Mixtures by the Ignition Method; and
- Field Note Samples, dated April 2004.

106.02 Visual Inspection. Delete the text of this Subsection and substitute the following:

Acceptance is based on visual inspection of the work for compliance with the specific contract requirements. In the absence of specific contract requirements or tolerances, prevailing industry standards may be used.

106.03 Certification. Add the following after the second paragraph:

Material or assemblies accepted on the basis of a Certification are listed in each Section of work

Maintain records of all required certifications according to Subsections 103.04, 153.04, and 154.04. Submit certifications to the CO before incorporating material into work identified.

Check certifications, before incorporating the materials into the work, to ensure that the requirements of the contract have been met. Mark the certifications with the following information: project name, project number, contract item number, item description, Contractor's signature, and date.

106.07 Partial and Final Acceptance. Delete paragraph **(a)** and substitute the following:

> **(a) Partial Acceptance**. When the Base Schedule, an Option, or any road within an option is completed, a final inspection of that portion of the project may be requested. If the portion is complete and in compliance with the contract, it will be accepted, and the Contractor will be relieved of further responsibility for maintenance of the completed portion. Partial acceptance does not void or alter any of the terms of the contract.

Delete Table 106-2 and substitute the following:

Table 106-2 Pay Factors

PAY FACTOR		Minimum Required Percent of Work Within Specification Limits for a Given Pay Factor $(P_U + P_L) - 100$														
Category		n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10 to n=11	n=12 to n=14	n=15 to n=17	n=18 to n=22	n=23 to n=29	n=30 to n=42	n=43 to n=66	n=67 to ∞
I	II															
1.05							100	100	100	100	100	100	100	100	100	100
1.04						100	99	97	95	96	96	96	97	97	97	97
1.03					100	98	96	94	92	93	93	94	95	95	96	96
1.02					99	97	94	91	89	90	91	92	93	93	94	94
1.01		100	100	100	98	95	92	89	87	88	89	90	91	92	92	93
1.00		69	75	78	80	82	83	84	85	86	87	88	89	90	91	92
0.99		66	72	76	78	80	81	82	83	84	85	86	87	89	90	91
0.98		64	70	74	76	78	79	80	81	82	84	85	86	87	88	90
0.97		63	68	72	74	76	77	78	79	81	82	83	84	86	87	88
0.96		61	67	70	72	74	75	76	78	79	81	82	83	84	86	87
0.95	1.00	59	65	68	71	72	74	75	76	78	79	80	82	83	84	86
0.94	0.99	58	63	67	69	71	72	73	75	76	78	79	80	82	83	85
0.93	0.98	57	62	65	67	69	71	72	73	75	76	78	79	80	82	84
0.92	0.97	55	60	63	66	68	69	70	72	73	75	76	78	79	81	82
0.91	0.96	54	59	62	64	66	68	69	70	72	74	75	76	78	79	81
0.90	0.95	53	57	61	63	65	66	67	69	71	72	74	75	77	78	80
0.89	0.94	51	56	59	62	63	65	66	68	69	71	72	74	75	77	79
0.88	0.93	50	55	58	60	62	64	65	66	68	70	71	73	74	76	78
0.87	0.92	49	53	57	59	61	62	63	65	67	68	70	71	73	75	77
0.86	0.91	48	52	55	58	59	61	62	64	66	67	69	70	72	74	76

Note: If the value of $(P_U + P_L) - 100$ does not correspond to a $(P_U + P_L) - 100$ value in this table, use the next smaller $(P_U + P_L) - 100$ value.

(continued)

Table 106-2 Pay Factors (continued)

PAY FACTOR		Minimum Required Percent of Work Within Specification Limits for a Given Pay Factor ($P_U + P_L$) - 100														
Category		n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10 to n=11	n=12 to n=14	n=15 to n=17	n=18 to n=22	n=23 to n=29	n=30 to n=42	n=43 to n=66	n=67 to ∞
I	II															
0.85	0.90	46	51	54	56	58	60	61	62	64	66	67	69	71	72	75
0.84	0.89	45	49	53	55	57	58	60	61	63	65	66	68	70	71	73
0.83	0.88	44	48	51	54	56	57	58	60	62	64	65	67	69	70	72
0.82	0.87	43	47	50	53	54	56	57	59	61	62	64	66	67	69	71
0.81	0.86	41	46	49	51	53	55	56	58	59	61	63	64	66	68	70
0.80	0.85	40	44	48	50	52	54	55	56	58	60	62	63	65	67	69
0.79	0.84	39	43	46	49	51	52	54	55	57	59	61	62	64	66	68
0.78	0.83	38	42	45	48	50	51	52	54	56	58	59	61	63	65	67
0.77	0.82	36	41	44	46	48	50	51	53	55	57	58	60	62	64	66
0.76	0.81	35	39	43	45	47	49	50	52	54	56	57	59	61	63	65
0.75	0.80	33	38	42	44	46	48	49	51	53	54	56	58	60	62	64
REJECT	0.79	32	37	40	43	45	47	48	49	52	53	55	57	59	60	63
	0.78	30	36	39	42	44	45	47	48	50	52	54	56	57	59	62
	0.77	28	34	38	41	43	44	46	47	49	51	53	55	56	58	61
	0.76	27	33	37	39	42	43	45	46	48	50	52	53	55	57	60
	0.75	25	32	36	38	40	42	43	45	47	49	51	52	54	56	59
	Values Less Than Those Shown Above															

Note: If the value of ($P_U + P_L$) – 100 does not correspond to a ($P_U + P_L$) – 100 value in this table, use the next smaller ($P_U + P_L$) – 100 value.

03M06/22/07

Section 107.— LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.01 Laws to be Observed. Delete the third paragraph and substitute the following:

Comply with the terms and conditions included in all permits and agreements obtained by the Government for performing the work included in this contract (See Section H). Notify the CO immediately of any changes, including modifications to government-obtained permits, or any additional permits or agreements that are required by the Contractor's methods of operation. Allow adequate time in the construction schedule for any additional permits or changes to government-obtained permits. Furnish copies of all acquired permits and agreements not in the contract.

Comply with the terms and conditions included in the Storm Water Pollution Prevention Plan (See Section I).

107.02Protection and Restoration of Property and Landscape. Amend as follows:

Delete the second paragraph and substitute the following:

Preserve public and private property, and protect monuments established for the purposes of perpetuating horizontal, vertical, cadastral, or boundary control. When a monument must be destroyed, reestablish monuments according to applicable state statute, or by the direction of the agency or individual who established the monument, unless otherwise stated in the plans.

USGS facilities and equipment are within the construction limits of North Park Road, Snake River Bridge (Option B). USGS facilities and equipment will be modified, removed and/or replaced only by designated representatives of the USGS. Provide the USGS with a minimum 10 calendar days notice before starting any work at the North Park Road, Snake River Bridge. The USGS contact information is as follows:

Contact: Mr. Jake Jacobson
WRD, USGS
Idaho Field Office
PO BOX 51099
Idaho Falls, ID 83402
Phone: (208) 529-4287
Fax: (208) 552-5560
Cell: (208) 589-4590

Add the following to the fourth paragraph:

Paleontological remains and archeological specimens found within the construction area are the property of the National Park Service or Forest Service and will be removed only by designated representatives of these agencies. Should the Contractor's operations, employees, or subcontractors operations uncover or find any paleontological remains or archeological specimens, suspend operations at the site of discovery and notify the CO immediately of the findings. Operations may continue in other areas. Include in the notification a brief statement of the location and details of the finding.

Delete the fifth and sixth paragraph and substitute the following:

The Government has notified the utility owners named below of the potential impact to, and the necessity for modifications to their facilities. Construction plans and cross-sections have been provided to the utility owners for their use in identifying potential conflicts.

Coordinate work and develop a utility relocation plan with the utility owners. Obtain approval of the utility relocation plan from the CO before starting work that may affect utility owner facilities. The following is a list of the known utility owners with facilities in the project limits.

Telecommunication:

QWest Communications

Contact: Ms. Mil Grigg
Senior Design Engineer
P.O. Box 488
Jackson, WY 83001
Phone: (307) 733-5357
(800) 348-1030

Power:

Lower Valley Energy

Contact: Ms. Jan Woodmancy
Customer Service Engineer
P.O. Box 572
4000 South Highway 89
Jackson, WY 83001
Phone: (307) 733-2446

Park Facilities (Water, Power, Telecommunications):

Grand Teton National Park
Contact: Ms. Sena Wiley
Park Engineer
P.O. Drawer 170
Moose, WY 83012-0170
Phone: (307) 739-3352

(a) Utility Relocation Plan. Develop a plan that includes work activities and construction schedules according to Section 155 and include the following:

(1) Certification of the utility relocation plan by all applicable utility owners.

(2) Utility notification and location schedule, methods, and responsible parties. Wyoming One-Call (800-348-1030) is listed under the national one call directory. Include location of Park facilities according to Section 636

(3) Breakdown of activities for lump sum Bid Item 63601 - System installation, electrical and other, coordination; into at least 4 individual activities.

(4) A complete schedule of activities for modifying existing utility facilities that show the following for each activity: work areas; dates; durations; and responsible parties for specified work.

(5) A protocol for advance notification of utility customers, Park Facilities Contact, and CO of planed outages, specifying affected areas, dates, and durations.

(6) Provide utility company project superintendent's name and emergency contact numbers.

(7) Maintain as-built drawings according Subsection 104.03**(c)**. Maintain an additional two sets of utility drawings showing existing facilities, installed facilities, abandoned facilities and modified facilities.

(b) Construction Requirements. Coordinate all temporary and permanent facility modifications to be accomplished by the applicable utility owner.

(1) Lower Valley Energy. Lower Valley Energy (LVE) is the sole provider to perform modification to power utilities located within the North Park Road, Phase II project. Provide LVE with a minimum 30 calendar day notice before starting operations along North Park Road, 31+300 to 32+700. Perform power utility relocation work under the following restrictions:

(a) Stake power cable relocation for approval by the CO before clearing and trenching operations.

(b) Coordinate power cable installation with LVE representative.

(c) Obtain certification from LVE, and approval from the CO, before starting backfilling operations. Perform trenching and backfilling according to Section 636.

(d) Structures no longer required for power system are property of LVE and will be removed from Park property. Only power cable in excess of 600 millimeters below subgrade will be allowed to be abandoned on Park property.

(e) The contractor is responsible for payment to LVE for their cost from pay item number 63601-3000 System installation, electrical. Do not add fees, overhead, or profit to LVE's invoice for work. The contractor's payment for coordination and management of LVE will be included in item 63601-3000, System Installation, electrical and other, coordination.

(2) QWest Communications. Provide QWest with minimum notification periods identified in the Utility Relocation Plan before starting operations. Qwest will accomplish their work at no cost to the project. Additionally the following areas have been identified with notification periods.

(a) 30 calendar days before starting operations at North Park Road, Phase II 31+300 to 32+700, and Grand Teton Park Pathway, Phase I (Option C); 2+500 to 2+750, 5+650 to 5+900, and 6+100 to 6+220.

(b) 45 calendar days before starting operations at Grand Teton Park Pathways (Option C), 0+350 to 0+840 including the conduit system work Snake River Bridge (at Moose); Eastside Highway, Buffalo Fork Riprap (option A), and North Park Road, Snake River Bridge (Option B)

Before installing conduit system on the Grand Teton Park Pathways (on Snake River Bridge at Moose) according to Section 636, obtain certification from QWest and provide to the CO, that all underground facilities have been fully modified to accommodate subgrade and conduit work.

(3) Grand Teton National Park. Perform work on park facilities according to Sections 611 and 636. Provide Grand Teton National Park with a minimum 45 calendar day notice before starting operations along Grand Teton Park Pathway, Phase I, 5+650 to 5+815.

Add the following after the last paragraph:

Eastside Highway and Buffalo Fork Riprap (Option A). To prevent damage to existing asphalt concrete pavement, provide a plan for protecting the existing pavement surface on the Eastside Highway, from 40+745 to 41+110 prior to performing hauling and excavation work on the Eastside Highway and Buffalo Fork Riprap (Option A) portion of the project.

Address specific protection methods within submitted schedules and plans according to Sections 155 and 156.

The Contractor is responsible for repair of damage to Eastside Highway, caused to the pavement by the Contractor's operations. Damage to the pavement includes cracked or broken pavement, deformation of the existing pavement surface greater than 20 mm, and gouges and cuts greater than 20 mm in depth.

Minimum repair for pavement damage will consist of removal and replacement of the full depth of pavement. Remove pavement from centerline to edge of pavement (width) and 1.0 meter on each side (length) of damaged area limits. No more than three separate patches will be allowed. Replace all pavement in the affected lane(s) from 40+745 to 41+110 if damage is caused to more than three areas.

Submit a plan for pavement repair within 7 days after notification of required repair. Complete all pavement repairs within 14 days after approval of pavement repair plan.

Damage and repair will be evaluated under Subsection 106.02.

107.03 Bulletin Board. Add the following:

(g) The "Beck" poster, according to FAR Clause 52.222-39 Notification of Employee Rights Concerning Payment of Union Dues or Fees.

107.03A Public Notice. (Added Subsection.)

Submit roadwork information in writing to the CO daily, describing operations planned for the following workday. Include information such as description of and location of work, construction operations that will affect traffic, expected delays, periods when the road is opened to traffic without delay, etc.

Prior to beginning any roadway work each day, call Park Dispatch at 307-739-3300 (press 6) describing general operations planned, and location of planned traffic delays.

107.08 Sanitation, Health, and Safety. Amend as follows:

Add the following after the first paragraph:

Submit an accident prevention plan for implementing safety and health standards seven days prior to the Preconstruction Conference. Use the Government furnished Form WFLHD-28, *Guide Outline of Contractor's Accident Prevention Plan*. In addition to Form WFLHD-28, include the following information in the Accident Prevention Plan:

(a) The schedule for weekly safety meetings with the hauling vehicle operators. Topics, such as; defensive driving techniques, safe stopping distances, compliance with speed limits, and remaining alert, or any such item that posses a threat to safe operations.

(b) The method the Contractor will use to control the speed of hauling vehicles such as radar, timing, or pacing.

(c) The schedule for and type of safety inspections that will be performed on the hauling vehicles.

(d) A description of the type of communication system that will be used to communicate between hauling vehicles.

(e) The method of ensuring that personnel comply with the restrictions of Subsections 156.06**(o)** and **(p)**.

Add the following to the last paragraph:

Keep the project site clean of construction debris at all times. Provide trash dumpsters that are certified bear-proof to contain construction debris, garbage and trash. Provide portable toilets for use by contractor employees. Collect and dispose all waste material outside of Park and Forest Service Lands.

107.10 Environmental Protection. Delete the text of this Subsection and substitute the following:

Conform to the following:

(a) The Federal Water Pollution Control Act (33 USC § 1251 et seq.).

(1) Except as authorized by this contract, do not operate mechanized equipment, discharge or place material within the boundaries of any U.S. waters as identified by the ordinary high water mark, high tide line, or edge of the wetland. This includes wetlands, unless authorized by a permit issued by the U.S. Army Corps of Engineers according to 33 USC § 1344, and if required by the state agency having jurisdiction over the discharge of material into the waters of the U.S. In the event of an unauthorized discharge:

(a) immediately prevent further contamination;

(b) immediately notify appropriate authorities and the CO; and

(c) mitigate damages as required.

(2) Separate work areas, including material sources by the use of a suitable barrier that prevents sediment, petroleum products, chemicals, other liquids, or solid materials from entering the waters of the U.S. Construct and remove barriers to avoid discharge of material into the waters of the U.S. Remove and properly dispose of sediment or other material collected by the barrier.

(b) Construction Activities Outside Construction Limits. Before beginning construction activities outside the construction limits (such as material sources, disposal sites, waste areas, access roads, water sources, stockpiles and staging areas) that will require ground disturbance, occupation, clearing, or other environmental impacts provide the following documents.

The requirements below do not apply to commercial sources that are established, have provided material to public and private entities on a regular basis over the last two years, have appropriate State and local permits, and do not require expansion outside their currently established and permitted area.

(1) Proposed Activity Description. Submit a description, schedule, and location of the proposed activities for approval of the CO. Include maps of the area and other relevant information.

(2) Cultural Resources. Submit written documentation satisfactory to the CO for a finding of either "no historic properties affected" or "no effect" according to 36 CFR 800.4(d)(1) for historic properties on or eligible for listing to the National Register of Historic Places. Provide either:

(a) Documentation showing there are no cultural resources present, and a finding of either "no historic properties affected" or "no effect" according to 36 CFR 800.4(d)(1). Documents must be prepared by an individual qualified under the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, 48 FR 44716-44740.

Documentation must be satisfactory to the State Historic Preservations Officer (SHPO) or Tribal Historic Preservations Officer (THPO) as appropriate, according to 36 CFR 800.3(c).

The CO will forward the documentation to the SHPO or THPO. Anticipate a minimum of 30 days from receipt of the documentation by the SHPO or THPO before use of the site may be approved; or

(b) Documentation showing a finding of either "no historic properties affected" or "no effect" according to 36 CFR 800.4(d)(1) has been previously obtained for the proposed activities from the State, Tribal Government or Federal Land Management Agency responsible for the land. Include attached copies of SHPO concurrence, or Memorandum of Agreement (MOA) where concurrence is not required.

(3) Species Protected Under the Endangered Species Act of 1973. Submit written documentation satisfactory to the CO that the proposed action will have no effect to any threatened or endangered species or their critical habitat. Provide either:

(a) A current list of all threatened or endangered species in the site of proposed activities from the U.S. Fish and Wildlife Service; and a recommendation of a "no effect" determination according to Section 7 of the Endangered Species Act prepared by a biological specialist with a minimum of 3 years of experience in Endangered Species Act compliance or other qualifications acceptable to the CO. Allow up to 30 days to obtain the current list of all threatened or endangered species from the U.S. Fish and Wildlife Service; or

(b) Documentation showing the proposed activities have previously been determined to comply with the Endangered Species Act and this determination remains valid. This documentation must be from the State, Tribal Government or Federal Land Management Agency responsible for the land. Attach evidence of compliance, including correspondence with the U.S. Fish and Wildlife Service.

(4) Wetlands as Defined by the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual (WDM). Submit written documentation satisfactory to the CO, that the proposed action will comply with Section 404 of the Clean Water Act, Executive Order 11990, and will not affect any wetlands. Documentation must be prepared by a wetland specialist with a minimum of 3 years of experience in wetland delineation using WDM or other qualifications acceptable to the CO.

(5) Federal Lands. Before use of sites on federal lands, submit a copy of the Letter of Approval or Special Use Permit from the applicable federal agency allowing use of the site for intended purposes.

(6) Tribal, State and Local Approvals. Comply with applicable laws regarding the proposed activities. Submit copies of required clearances, including hazardous waste compliance, tribal, State and local permits and approvals.

Allow 12 days (in addition to other agency time requirements) for approval of documents submitted to the CO.

(c) Oil and Hazardous Substances. Submit a Hazardous Spill Plan at least 2 days before beginning work describing what actions will be taken in case of a spill, and incorporate preventative measures to be implemented (such as the placement of refueling facilities, storage and handling of hazardous materials, etc).

At present, a Spill Prevention, Control, and Countermeasure (SPCC) plan will be required for sites in operation after July 1, 2009 that store petroleum and synthetic oil products with a maximum above-ground combined capacity greater than 5,000 liters (1,320 gallons). This includes both bulk and operational storage containers (such as tanks on trucks and construction equipment) with a capacity greater than 210 liters (55 gallons) that are used to transfer or store oil for further distribution. It does not include tanks used primarily to power the movement of the motor vehicle. Develop a SPCC plan for sites that meet the requirements of 40 CFR Part 112. Owners and operators must comply by July 1, 2009. Submit the SPCC plan by June 28, 2009.

If a SPCC Plan is not required, submit a Hazardous Spill Plan describing what actions will be taken in case of a spill, and incorporate preventative measures to be implemented (such as the placement of refueling facilities, storage and handling of hazardous materials, etc). Submit the Hazardous Spill Plan at least 2 days before beginning work.

Do not use equipment that is leaking fluids. Repair leaks on equipment immediately. Keep a supply of absorbent materials at the job site in the event of spills. Acceptable absorbent materials are those manufactured specifically for the containment and clean up of hazardous materials.

Immediately notify the CO of all hazardous spills.

(d) Monitor river and stream turbidity and pH levels and water quality as outlined in Section 157. Conduct operations according to the State of Wyoming NPDES included in Section H, Permits.

107.11 Protection of Forests, Parks, and Public Lands. Add the following:

Comply with the following:

(a) All vehicles and equipment including office trailers and residential trailers that enter the park and are staged in association with this project, will be inspected by the CO prior to their entry into the Park for mud, weeds, and other unwanted substances. Steam clean all earth-moving equipment (including hauling vehicles) and pile driver equipment of mud and weed seed. Subsequent entries of hauling vehicles will not require cleaning unless requested by the CO. Notify the CO a minimum of 48 hours prior to the entry of vehicles and equipment.

(b) Do not operate or park any equipment off the paved roadway. Do not operate or store vehicles and equipment leaking oil, gas, or anti-freeze within the Park or National Forest boundaries. Do not drain oil, hydraulic fluids, anti-freeze, or other chemicals onto the ground within the Park or National Forest boundaries. Completely contain diesel fuel at the work site. Clean up any spill immediately.

(c) Sleeping in vehicles or camping within the Park or National Forest boundaries will not be allowed, except as provided in Subsection 107.12.

(d) Do not use explosive material within the Park or National Forest boundaries.

(e) Do not feed or disturb wildlife within the Park or National Forest boundaries. Store and handle food, fuel, or other attractants in a manner that does not attract bears, i.e., no food, pet food, garbage, drinks, trash, or food and drink containers will be placed outside vehicles, trailers, buildings, or bear-resistant containers except during actual use. Contractor supplied garbage bins must be bear proof and meet Park requirements. Any mishandling of garbage, trash, food, and other potential bear attractants described above will result in the responsible person, or Contractor, receiving a citation subject to a fine.

(f) Temporarily suspend construction activities according to Subsection 108.06 when a grizzly bear or wolf comes near an active construction area and creates a potential

animal/human conflict. Immediately notify the CO and Park Ranger for resolution of any potential bear/human conflicts or of actual bear/human confrontations. If necessary contractor, subcontractor, and employees may be required to carry bear pepper spray, if warranted by bear/human activity. The Government will not supply bear pepper spray.

(g) Immediately remove all debris that falls into the stream as a result of construction operations.

(h) The contractor, subcontractor and all employees will be required to attend Park orientation meetings presented by the National Park Service prior to beginning work. Notify the CO 14 days prior to beginning work so orientations can be scheduled.

Subcontractors or employees hired after the scheduled Park orientation meeting will be required to attend additional Park orientation meeting(s).

107.12 Contractor's Camp. (Added Subsection.)

Camping or temporary residing is not allowed on the National Forest or Park lands unless designated. The following sites are designated as contractor's camp locations:

- Spread Creek Pit Campsite;
- Snake River Campground.

Spread Creek Pit Campsite is located at the entrance to Spread Creek Pit and south of the existing access road. There are five (5) campsites at this location. Trailers and vehicles are restricted to the existing aggregate pad.

Snake River Campground is located on North Park Road at approximately 38+840, left. There are up to 13 campsites at this location. Trailers and vehicles are restricted to designated campsites and access road.

Only hard-sided trailer camping will be allowed at all campsites. Campsites will be provided free of charge to the Contractor for the duration of the contract. All campsites are designated as "dry camping" only. Dry camping is defined as self-contained camp trailers where external water, sewer, and electrical services are not provided.

Comply with the following:

(a) The Contractor will designate an on-site camp boss at each campsite to ensure the Contractor Camp operation remains in compliance with Park and National Forest permits, special orders, and regulations. The responsibilities of the camp boss will include, but not be limited to, ensure proper food handling and storage, solid waste storage and disposal, management of camp facilities, and act as the contact for the National Park Service.

(b) Provide conditions and activities at campsites in accordance with Subsection 107.11. Provide additional portable toilets and bear proof garbage bins for campsite residents.

(c) All campsite residents are required to attend the Park orientation meetings, according to Subsection 107.11**(h)**, prior to occupying any campsite.

(d) Furnish a weatherproof bulletin board of suitable size and construction for continuous display of posters and other information regarding contractor's campsite. Erect and maintain the bulletin board immediately next to campsite. Remove bulletin board after campsite is no longer occupied.

Display each of the following documents on the bulletin board:

(1) Poster containing "Contractor's Camp and *Name*" in 75 millimeter letters

(2) Poster containing contact information for the camp boss, including name, title, campsite location, and phone number.

(3) USDA- Forest Service Special Order Number 04-00-104 including Exhibits A and B, available at; http://www.fs.fed.us/btnf/.

(4) Grizzly Bear Management and Protection Plan for Spread Creek Pit, Bridger-Teton National Forest, that is Exhibit 3 of the of the Spread Creek Special Use Permit in Section H, Permits.

(5) Provide and maintain a minimum area of 432 millimeters by 432 millimeters on the bulletin board for Park provided material.

(6) Pets will be not allowed at camping locations within the National Park

Camping at Spread Creek Pit and Snake River Campground may be reduced or eliminated at any site due to noncompliance or for resource protection such as bear activity, other wildlife activity, or unfavorable soil and plant impacts.

03M09/21/07

Section 108.— PROSECUTION AND PROGRESS

108.01 Commencement, Prosecution, and Completion of Work. Amend as follows:

Add the following:

Furnish at least 48 hours advance notice before changing the current work schedule. Work schedule changes that include additional shifts require 14 days notice.

If the Government exercises Option A, Option B, Option C or all, the fixed completion date will not be modified.

Furnish notification at least 48 hours in advance to beginning the start-up phase in Section 153.

Perform work under this contract according to the following:

(a) Do not perform construction operations between 6 p.m. Friday and 6 a.m. the following Tuesday of the Memorial Day and Labor Day weekends, and according to Subsections 156.03**(g)** & 156.06**(k)**.

(b) Limit work within Spread Creek Pit according to Subsection 105.02.

(c) Limit work that disturbs the surface of the traveled way as provided for under Subsections 156.03 and 156.06.

(d) Do not remove asphalt pavement on North Park Road from 30+800 to 38+330 before June 15 of any year, except in Subexcavation areas. This date restriction may be waived in writing by the CO, depending on weather and roadway conditions.

(e) Do not perform work between 6:00 p.m. and 7:00 a.m. at the following locations:

(1) North Park Road from 27+857 to 28+900.

(2) Grand Teton Park Pathways, Phase I, as approved by the CO

(f) Perform a walk-through with the CO of all work 10 working days prior to the winter shutdown period listed in paragraph **(d)** for the purpose of identifying clean up needs, erosion prevention needs, and any issues regarding storage of materials over winter shutdown.

(g) Do not perform in-stream work before August 1 of any year. Perform in-stream work in accordance with Sections H, Permits, and I, Storm Water Pollution Prevention Plan. In-stream work is defined as any ground disturbing activities conducted below the ordinary high water (OHW) elevation as shown on the plans. If OHW is not shown on the plans, then in-stream work is defined as any ground disturbing activities conducted within 0.6 meters of the wetted perimeter. The following locations are to be considered in-stream work areas.

(1) North Park Road, Phase II: Un-named tributary to Dime Creek (33+938), Dime Creek (35+507), and Nickel Creek(36+367), and

(2) North Park Road, Snake River Bridge (Option B): Snake River, and

(3) Grand Teton Park Pathways, Phase I (Option C) Cottonwood Creek. (6+400).

Complete in-stream work at the Snake River by November 15, 2009.

(h) Complete all work to salvage and replant trees, shrubs, and forbs performed under Items 622 and 623 by May 31, 2008 from approximately 0+050 to 0+117 on the Visitor Center Connection. See Section 611 for interim watering requirements.

(i) Complete all work under items; 15705, 20101, 20301, 20303, 20401, , 20404, 25125, 30101, 30505, 40401, 60201, 61101, 61501, and 62406 by July 1, 2008, from 0+000 to 0+117.395 on the Visitor Center Connection and 0+900 to 0+925 of the Grand Teton Park Pathways.

(j) Complete all work under items; 15705, 20101, 20301, 20302, 20303, 20401, 20404, 20801, 25101, 25125, 25505, 30101, 30505, 40401, 55201, 55401, 55504, 55601, 60201, 60202, 60504, 60510, 60901, 61101, 61501,61904, 62406, 63302, 63316, 63401, 63403, 63602, 63610, 63621, 64603, and 64604 by October 31, 2008, from 5+660 to 12+687.868 on Pathway Mainline.

(k) North Park Road, Snake River Bridge (Option B). Complete all items from station 39+440 to 39+495 before July 1, 2009

(l) Complete all mainline paving for North Park Road (all stations) and Grand Teton Park Pathways before October 1 of any year.

Delete the text of the second paragraph and substitute the following:

A preconstruction conference will be held after the task order is awarded and before beginning work. Provide a work plan according to Section 155.

108.01A Labor. (Added Subsection.)

Follow the requirements of FAR Clause 52.222-6 Davis Bacon Act.

Adjacent or virtually adjacent work sites are defined to be work sites within 0.8 kilometers of the project. Application of the Davis-Bacon Act for work sites beyond 0.8 kilometers of the project will be determined by the CO.

Spread Creek Pit and Snake River Pit have been determined to be adjacent or virtually adjacent to the project. Davis-Bacon Wage Rates will apply.

108.02 Subcontracting. Amend as follows:

Delete the first paragraph and substitute the following:

FAR clauses 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns, 52.222-11 Subcontracts (Labor Standards), and 52.236-1, Performance of Work by the Contractor are supplemented as follows.

Delete the fourth paragraph and substitute the following:

In FAR Clauses 51.219-8, Utilization of Small Business Concerns and 52.237-27, Prompt Payment for Construction Contracts, the subcontracts include both on-site work and supply contracts.

Evaluate the percentage of the cost of contract performance incurred for personnel in FAR Clause 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns, according to the following formula:

$P = H / T$

Where:

P = Percent of the cost of contract performance incurred for personnel working for HUBZone firms

T = Total wages/benefits paid during the life of the contract. Certified payrolls will be used to determine Davis-Bacon wages and benefits paid. Submit certified statements at least monthly declaring the wages and benefits paid to non-Davis Bacon personnel under this contract.

H = Total wages/benefits paid to employees working for HUBZone firms (prime and subcontractors)

In FAR Clause 52.236-1, Performance of Work by the Contractor, the percentage of work performed on-site by the Contractor will be computed as 100% less the combined initial dollar amount of all subcontracts involving on-site labor as a percent of the original dollar amount of the contract.

108.04 Failure to Complete Work on Time. Delete the text and table of this Subsection and substitute the following:

Follow the requirements of FAR Clause 52.211-12 Liquidated Damages — Construction.

Liquidated damages in the amount specified in Table 108-1 will be assessed for each calendar day beyond the time specified in the contract until substantial completion of the work.

If the Government exercises any options, assessment of liquidated damages will be based on the completion date as provided for in Subsection 108.01.

Liquidated damages will not be assessed for the following:

(a) The day of the final inspection.

(b) Days required to perform work added to the contract after substantial completion including items identified during the final inspection that were not required before that time.

(c) Delays by the Government after all work is complete and before a formal acceptance is executed.

(d) Periods of time when all work is complete but acceptance is delayed pending the plant establishment period or similar warranty period.

(e) During winter shutdown periods according to Subsection 108.01**(d)**.

Table 108-1
Charge for Liquidated Damages for Each Day Work Is Not Substantially Completed

Original Contract Price		Daily Charge
From More Than —	To and Including —	
$ 0	$ 1,000,000	$ 500
1,000,000	2,000,000	1,100
2,000,000	5,000,000	2,200
5,000,000	10,000,000	2,700
10,000,000	and more	3,300

108.06 Suspension. (Added Subsection.)

Follow the requirements of FAR Clause 52.242-14 - Suspension of Work.

The performance of the work may be suspended, either in whole or in part, for such periods deemed necessary due to the presence of grizzly bears and wolves. See Subsection 107.11**(f)**.

03M08/29/07

Section 109.— MEASUREMENT AND PAYMENT

109.01 Measurement of Work. Amend as follows:

Delete the first sentence of paragraph six and substitute the following:

Prepare pay item measurement notes on "*Record of Miscellaneous Items"* (Form FHWA 17348). For an electronic version of the form go to:

http://www.wfl.fha.dot.gov/other/it/forms/17348.pdf.

Delete the text of paragraph **(b)** and substitute the following:

(b) Task Order item number;

109.02 Measurement Terms and Definitions. Add the following:

(m) Fixed hourly rate. Measure the actual number of hours ordered by the CO and performed by the Contractor.

109.03 Weighing Procedures and Devices. Delete the text of paragraph **(c)(2)** and substitute the following:

(2) Task Order pay item number and description;

109.04 Receiving Procedures. Delete the text of paragraph **(b)** and substitute the following:

(b) Task Order pay item number and description.

109.08 Progress Payments. Amend as follows:

Delete the text of paragraph **(b)** and substitute the following:

(b) Closing date and invoice submittal date. The closing date for progress payments will be designated by the CO. Include work performed after the closing date in the following month's invoice. For work performed between September and July of any year, submit invoices to the designated billing office by the 7th day after the closing date. Invoices received by the designated billing office after the 16th day following the closing date, for work included in the September through July invoices, will not be accepted for payment processing that month. For work included in the August invoice, submit the invoice to the designated billing office by the 5th day after the closing date. Invoices received by the designated billing office after the 5th day following the closing date, for work included in the August invoice, will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

Delete the text of paragraph **(e)** and substitute the following:

(e) Processing progress payment requests. No payment will be made for work unless field note documentation for the work was provided by the closing date.

(1) Work performed between September and July.

(a) Invoices received by the 7th day following the closing date.

(1) Proper invoices. If the invoice meets the requirements of Subsection 109.08**(c)**, and the quantities and unit prices shown on the contractor's invoice agree with the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be paid.

(2) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08**(c)**, or if any of the quantities or unit prices shown on the contractor's invoice exceed the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be deemed defective and the Contractor so notified according to FAR Clause 52.232-27(a)(2). Defective invoices will not be corrected by the Government and will be returned to the contractor within 7 days after the Government's designated billing office receives the invoice.

Revise and resubmit returned invoices by the 18th day following the closing date. The CO will evaluate the revised invoice. If the invoice still does not meet the requirements of Subsection 109.08**(c)**, the contractor will be so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the revised invoice meets the requirements of Subsection 109.08**(c)**, but still has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing by the 23rd day following the closing date. The contractor will be notified by the 23rd day following the closing date of the reasons for any changes to the invoice.

(b) Invoices received between the 8th and 16th day following the closing date.

(1) Proper invoices. If the invoice meets the requirements of Subsection 109.08**(c)**, and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

(2) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08**(c)**, the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08**(c)**, but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing within 7 days after receiving the invoice. The contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

(2) Work performed during August.

(a) Proper invoices. If the invoice meets the requirements of Subsection 109.08**(c)**, and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

(b) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08**(c)**, the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08**(c)**, but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing within 7 days after receiving the invoice. The contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

Delete the text of paragraph **(f)** and substitute the following:

(f) Partial payments. Invoices may include the following:

(1) Progress payments may include partial payment for material to be incorporated in the work, provided the material meets the requirements of the contract and is delivered on, or in the vicinity of, the project site or stored in acceptable storage places.

Partial payment for material does not constitute acceptance of such material for use in completing items of work. Partial payments will not be made for living or perishable material until incorporated into the project.

(2) Partial payment for preparatory work. Partial payment for preparatory work does not constitute acceptance of work.

Individual and cumulative partial payments for preparatory work and material will not exceed the lesser of:

- 80 percent of the contract bid price for the item; or
- 100 percent of amount supported by copies of invoices submitted.

The quantity paid will not exceed the corresponding quantity estimated in the contract.

Submit pay notes according to Section 153. Provide a cost breakdown of the bid item components and submit invoices or other documents supporting the partial payment.

The CO may adjust partial payments as necessary to protect the Government.

03M06/22/07

Section 151.— MOBILIZATION

Payment

151.03 Delete the text of this Subsection and substitute the following:

The accepted quantity, measured as provided in Subsection 109.02, will be paid at the task order price per unit of measurement for the Section 151 pay item shown in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for mobilization lump sum will be paid as follows:

(a) Bond premiums will be reimbursed according to FAR Clause 52.232-5 Payments Under Fixed-Price Construction Contracts, after receipt of the evidence of payment.

(b) When 5 percent of the original task order amount is earned from other bid items, 50 percent of the mobilization item, or 5 percent of the original task order amount, whichever is less, will be paid.

(c) When 10 percent of the original task order amount is earned from other bid items, 100 percent of the mobilization item, or 10 percent of the original task order amount, whichever is less, will be paid.

(d) Any portion of the mobilization item in excess of 10 percent of the original task order amount will be paid after final acceptance.

03M06/06/06

Section 152.— CONSTRUCTION SURVEY AND STAKING

Construction Requirements

152.02 General. Amend as follows:

Delete the text of this Subsection and substitute the following:

At the preconstruction conference, submit a cost breakdown of the individual items included in the lump sum item for use in making progress payments.

(a) Survey schedule. Include staking activities in the construction schedule submitted according to Section 155. Include the dates and sequence of each staking activity.

Delete the first through the fifth paragraphs and substitute the following:

(b) North Park Road, Phase II, (27+857 to 38+330), North Park Road Snake River Bridge (Option B) (39+370 to 39+601) and Grand Teton Park Pathway, Phase I (0+007.402 to 12+687.898) The Government has set horizontal and vertical control points for the project. The location and identity of each control point are shown on the plans.

Before beginning construction, notify the CO of any missing control points or stakes. The Government will reestablish control points and stakes missing before the beginning of construction.

(c) Government furnished information. The Government will furnish the following data relating to horizontal and vertical alignment and theoretical slope stake catch points, and other design data:

(1) Computer listings containing horizontal alignment, vertical profile, superelevation, excavation and embankment slope ratios, and earthwork quantities:

(2) Computer generated construction staking notes showing theoretical slope stake catch points and reference points;

(3) Computer generated clearing notes (based on theoretical catch points);

(4) X, Y, Z coordinates (horizontal and vertical control points);

(5) X, Y, Z coordinates (subgrade centerline and shoulders); and

(6) Plotted cross sections (earthwork).

(7) Station and offset data (road approaches and intersection layout as shown on the plans.

(d) North Park Road, Moran Shoulder Widening (0+409 to 0+610)
North Park Road, Moran Entrance Station Repair (0+280 to 0+360)
Eastside Highway, Buffalo Fork Riprap (Option A)(40+775.45 to 41+084.55)

The CO will locate the beginning station point at the beginning of these segments of work. No other control for these segments of work will be established. The existing centerline will constitute horizontal and vertical alignment.

Survey and stake according to Subsection 152.03, before beginning construction.

Perform additional calculations for convenient use of Government-furnished data. Provide immediate notification of apparent errors in the initial staking or in the furnished data.

(e) Pre-survey meeting. Before surveying or staking, discuss and coordinate the following with the CO:

(1) Surveying and staking methods;

(2) Stake marking;

(3) Grade control for courses of material;

(4) Referencing;

(5) Structure control; and

(6) Any other procedures and controls necessary for the work.

Preserve all initial reference and control points. After beginning construction, replace all destroyed or disturbed initial reference or control points necessary to the work.

Prepare field notes in an approved format. Sample note formats are available as listed in Subsection 106.01. Furnish all survey notes at least weekly.

Survey and establish controls within the tolerances shown in Table 152-1. The construction survey and staking work may be spot-checked for accuracy, and unacceptable portions of work may be rejected. Resurvey rejected work, and correct work that is not within the tolerances specified in Table 152-1. Acceptance of the construction staking does not relieve the Contractor of responsibility for correcting errors discovered during the work and for bearing all additional costs associated with the error.

Start work only after staking for the affected work is accepted.

All field notes, pay notes, and supporting documentation become the property of the Government upon completion of the work.

Remove and dispose of all flagging, lath, stakes, and other staking material after the project is complete. Remove visible portions of brushes if used to mark grade finishing stakes.

Add the following:

At the preconstruction conference, submit a cost breakdown of the individual items included in the lump sum item for use in making progress payments.

152.03 Survey and Staking Requirements. Amend as follows:

(b) Roadway cross-sections. Delete the text of this paragraph and substitute the following:

Roadway cross sections are not required, except as provided in paragraphs **(o)** & **(q)** and in Subsection 204.16. If cross sections are required as provided in Subsection 204.16, take roadway cross-sections normal to centerline. Take cross-sections at a maximum centerline spacing of 20 meters. Take additional cross-sections at significant breaks in topography and at changes in the typical section. Along each cross-section, measure and record points at breaks in topography, but no further apart than 5 meters. Measure and record points to at least the anticipated slope stake and reference locations. Reduce all cross-section distances to horizontal distances from centerline.

(d) Clearing and grubbing limits. Delete the text of this paragraph and substitute the following:

Set clearing and grubbing limits based on actual slope stake catch points.

(e) Centerline establishment. Delete the text of this paragraph and substitute the following:

North Park Road, Moran Shoulder Widening (0+409 to 0+610).
North Park Road, Moran Entrance Station Repair (0+280 to 0+360).

Determine existing alignment, profile, cross slope, and width for layout of work as follows:

(1) Establish and mark the centerline of the roadway at 10 meter intervals and 20 meters beyond each termini of the construction limits. Determine centerline as the center of the existing roadway at 0+200 and establish centerline shown on the plans. Set reference stake and hub for each centerline point, perpendicular to the centerline and outside the work area. Establish station and reference (horizontally and vertically) to the established centerline. Record the measured station, horizontal offset distance and vertical offset distance from centerline point to hub on the stakes as well as in the survey notes. Reset centerline and station stakes as many times as necessary to complete the work.

(2) Determine the existing profile, crown and/or superelevation, and pavement width. Take cross sections of the existing roadbed at the established centerline stations. Take and record ground shots at existing paved shoulders. Record the crown, superelevation, and road width each side of the centerline, on the centerline reference stake and in the notes.

(3) 10 days prior to pavement removal submit survey notes and computations showing the existing profile, crown, and/or superelevation, and pavement widths in a form approved by the CO. The CO will determine pavement width, subgrade elevation, crown and superelevation at each established station.

(4) Set grade finishing stakes (hubs) to grade elevations and horizontal alignment at top of subgrade and top of roadway aggregate course. Set hubs along centerline and each shoulder for each established station. Set or replace grade finishing stakes as many times as necessary to construct the subgrade and roadway aggregate course in accordance with the plans.

Eastside Highway, Buffalo Fork Riprap (Option A) (40+775.45 to 41+084.55)

For the above locations establish and mark the centerline of the existing roadway at 20-meter intervals. Determine centerline as the center of the existing roadway with visual adjustments to points that will produce tangents and smooth horizontal curves. Set reference stake and hub for each centerline point, perpendicular to the centerline and outside the work area. Establish station and reference (horizontally and vertically) to the established centerline. Record the measured station, horizontal offset distance and vertical offset distance from centerline point to hub on the stakes as well as in the survey notes. Reset centerline and station stakes as many times as necessary to complete the work.

(f) Grade finishing stakes. Add the following:

Use brushes or guard stakes at each stake.

Add the following:

(m) Asphalt paver reference line. Set adequate horizontal control points or reference lines for asphalt concrete paver as specified in Subsection 401.13.

(o) Spread Creek Pit Material source. Stake the material source limits in accordance with Subsection 105.02 **(2)(g)**. Prior to topsoil removal or extraction activities, take cross-sections of the material source staging, stockpiling, and extraction area limits as shown on the plans. Take cross-sections according to Subsection 152.03**(b)** with the baseline, shown on the plans, used as centerline. Take periodic cross-sections as extraction progresses to show vertical and horizontal limits of extraction. Take final cross-sections after reclamation work has been completed. Reduce all survey data and compute the quantity of material extracted. Submit data and quantity, in an approved form, to the CO.

(p) Subexcavation areas. Perform the following:

(1) Set centerline stationing at maximum 20 meter intervals. Take cross sections perpendicular to centerline. Reduce all cross sections to horizontal distances from centerline.

(2) Set cut stakes along centerline and at each shoulder.

(3) Take cross sections after excavation and before backfilling for measurement of subexcavation quantities.

(4) Set grade finishing hubs to grade elevations at the top of borrow and at the top of the aggregate base course. Set hubs at centerline and each edge of shoulder. Use blue colored hubs/brushes for the top of borrow, and use red colored hub/brushes for the top of aggregate base. Set and mark hubs with guard stakes, replace hubs as necessary to construct aggregate base course.

Add the following to Table 152-1.

Table 152-1
Construction Survey and Staking Tolerances
(continued)

Staking Phase	Horizontal	Vertical
Asphalt paver reference line	±50 millimeters	—
Centerline reference line*	± 25mm*	± 5mm*

*Applies only to North Park Road , 0+280 to 0+360 and 0+490 to 0+610, and Eastside Highway.

152.03A Project Specific Requirements. (Added Subsection.)

Survey work under this contract includes layout, control, and measurement as necessary to adequately construct the project. Staking for this project will include the following:

- Control Points;
- Roadway cross sections;
- Slope stakes and references;
- Clearing and grubbing limits;
- Centerline reestablishment;
- Grade finishing stakes;
- Drainage structures;
- Bridges;

- Retaining walls;
- Borrow sites;
- Permanent monuments and markers;
- Miscellaneous survey and staking;
- Intermediate surveying and staking;
- Asphalt paver reference line;
- Roadway aggregate; (shoulder dressing)
- Pavement markings;
- Seeding;
- Temporary pavement markings;
- Post-mounted construction signs.

Added Table:

Table 152-2
Measurement Tolerances

Pay Unit	Horizontal	Vertical
Cubic meter	50 millimeters or 1:500 whichever is greater	100 millimeters or 1:333 whichever is greater
Hectare	300 millimeters or 1:100 whichever is greater	—
Kilometer	1 meter or 1:1000 whichever is greater	—
Meter	50 millimeters or 1:500 whichever is greater	—
Square meter	50 millimeters or 1:500 whichever is greater	—

Payment

152.06 Delete the second paragraph and substitute the following:

Payment for lump sum items will be prorated based on the progress of the work under this Section.

Section 153.— CONTRACTOR QUALITY CONTROL

Delete the text of this Section and substitute the following:

Description

153.01 This work consists of obtaining samples for quality control testing, performing quality control tests, providing inspection, and exercising management control to ensure that work conforms to the contract requirements. See FAR Clause 52.246-12 Inspection of Construction.

Do not submit documentation or plans previously submitted and accepted under a separate task order unless there is a change of personnel or specific work features require an amendment to the accepted plan.

Construction Requirements

153.02 Personnel Qualifications. Furnish a quality control manager with at least one year of experience managing highway construction quality control or quality assurance programs and meeting one of the following requirements:

(a) A Bachelor of Science degree from a four year program in civil engineering, civil engineering technology, construction management, or construction engineering;

(b) 2 years experience as a superintendent of a road or highway construction firm;

(c) A level four highway construction or highway materials NICET certification; or

(d) 4 years experience as a highway construction inspection or materials quality control supervisory technician.

153.03 General. Provide a quality control system that plans, performs, and documents quality control activities.

Alternate quality control systems that meet the intent of this specification may be implemented by contract modification if approved by the CO.

Provide a quality control manager on-project during work with the authority to stop work not in compliance or that will result in non-compliance with contract requirements.

Identify an alternate in the quality control manager's absence. The alternate must meet the qualifications for a quality control manager. An alternate may not act for the quality control manager for a period greater than three (3) days unless approved by the CO.

Submit names and qualifications of the quality control manager and any alternate to the CO for approval 14 days before start of work.

Furnish additional quality control staff (inspectors, testers, reviewers, and clerical assistants) to complete the work specified in this Section. Provide names and qualifications of additional personnel to the CO 14 days before start of work.

Do not designate superintendents, foremen, traffic and safety supervisors**,** or project testing technicians, as the quality control manager or other quality control personnel.

153.04 Quality Control Plans. Provide quality control plans for selected work features. The absence of a plan for other items of work does not relieve the Contractor of complying with the contract requirements. Additional quality control activities may be required to provide effective quality management.

(a) Development. Develop quality control plans for the following work features:

- Construction Survey and Staking; (Section 152)
- Water Quality Monitoring; (Section 157)
- Clearing and Grubbing; (Section 201)
- Removal of Structures and Obstructions; (Section 203)
- Excavation and Embankment, sloping, shaping, and finishing; (Section 204)
- Riprap, Special Rock Embankment, and Rock Buttress; (Sections 251 and 252)
- MSE Walls; (Section 255)
- Aggregate Courses; (Sections 308, 310)
- Asphalt Pavement; (Sections 401, 404, 413)
- Steel and Concrete Structures; (Sections 552, 555)
- Drainage Structures; (Section 602)
- Temporary Traffic Control; (Sections 156, 635, 636)
- Utility Installation and Coordination. (Section 636)

Use "*Contractor Quality Control Plan"* (Form WFLHD 471) to prepare the quality control plan for each work feature. An electronic version of the form is available at http://www.wfl.fha.dot.gov/other/it/forms/wflhd471m.xls.

Complete the first three columns on form WFLHD 471 and submit to the CO for acceptance at least 7 days before commencing work. Address the following activities on the worksheet:

(1) Review contract requirements, plans and specifications independently and with construction supervisory staff;

(2) Check and verify submittals, plans, and materials certifications meet contract requirements and submit to the CO for approval. Provide statement and signature of verification according to Subsection 106.03;

(3) Check site conditions for constructability, including staging, and disposal and storage areas. Verify materials delivered to the site conform to accepted materials certifications, submittals, plans and contract requirements before incorporating into the project.

(4) Review construction staking to assure it meets contract requirements, accuracy, and sufficiency for each work feature;

(5) Provide an operational work plan. Include a brief written narrative of the work activity for the feature describing methods, locations, crews, equipment, and methods to be used to complete the work;

(6) Conduct pre-work meetings. Review contract requirements with the construction crew, foremen, and Government personnel before beginning work. Provide an overview of the operational work plan;

(7) Ensure construction methods will result in the end product meeting the contract requirements.

Include the following in the plan for selected work features as a supplement to the sampling and testing requirements located at the end of each Section.

- the process to ensure the completed feature of work conforms to contract requirements
- the inspection or testing, and frequency, to ensure the process remains valid or work is being performed according to the established process
- the action(s) taken if the inspection or testing reveals the work is not meeting contract requirements

Perform corrective actions as needed to ensure work meets contract requirements.

(8) Provide immediate on-site presence to communicate status of work to FHWA and contractor personnel and for quality control issue resolution;

(9) Verify completed work meets contract requirements.

Revise quality control plans when personnel, activities, or processes change or when deficiencies occur in the work.

The CO may request additional quality control plans for work features not listed above if work in progress or completed work does not conform to contract requirements or is lacking an effective quality control process.

(b) Implementation. Implement quality control activities as described in the accepted plan. Do not begin a work feature until the plan is approved by the CO and a pre-work meeting (Activity 6) is performed.

(1) QC Reports – Report quality control meetings, reviews, inspections, measurements, testing activities, corrective actions, and discussions that verify the work meets contract requirements as quality control activities listed in *"Contractor Quality Control Plan"* (Form WFLHD 471) are completed. Provide narrative and original support data. Document findings such as deficiencies found in the work, and describe corrective actions, adjustments to frequency of quality control activities, and method or process changes to correct and eliminate future deficiencies. Provide reports daily to the CO or as specified in the quality control plan. Include the following certification signed by the quality control manager:

"*I certify the information contained in this record is accurate and all work documented herein complies with the contract requirements. Any exceptions to this certification are documented as a part of this record.*"

(2) Notification of Completion of Work. Submit a completed "*Notification of Completions of Work"* (Form WFLHD 470) when work listed in Subsection 153.06 is ready for inspection

153.05 Quality Control Sampling and Testing. Provide sampling and testing as listed at the end of each Section, and defined in the quality control plan.

Testing of trial samples may be required to demonstrate testing competence.

Sample and split samples according to AASHTO or other acceptable procedures. Allow the CO the opportunity to witness all sampling. Immediately perform splits when required. Deliver the Government's portion of the sample or split sample in an acceptable container suitable for shipment. Label all samples with the following information:

- Project number;
- Source of material;
- Pay item number;
- Sample number;
- Date sampled;
- Time sampled;

- Location sample taken;
- Name of person sampling;
- Name of person witnessing sampling; and
- Type of test required on sample.

Provide the following documentation:

(a) Quality Control Test Results. Report test results on forms containing all sample information required by Subsection 153.05. Attach work sheets, used to determine test values, to the test result forms when submitted.

(b) Control Charts. Maintain linear control charts that identify the project number, contract item number, test number, each test parameter, the upper and/or lower specification limit applicable to each test parameter, and test results. Use the control charts to document the variability of the process, identify production and equipment problems, and identify potential pay factor adjustments. Make corrections to the process when problems are evident. Post charts at the Contractor's project testing lab and on site.

153.06 Government Quality Assurance Inspection. Submit a *"Notification of Completion of Work" (F*orm WFLHD 470) when the following work is ready for inspection:

(a) Allow 1 working day for the following work to be inspected.

(1) Survey and staking (field stakes and notes). Provide survey notes for the following:

(a) Control points – before disturbing original control points;

(b) Clearing limits – before starting clearing and grubbing operations;

(c) Slope stakes – before starting excavation;

(d) Sub excavation – before backfilling;

(e) Guardrail – before starting installation;

(f) Bridge – before starting work on each component;

(g) Walls – before starting work; and

(h) Fence – before starting installation

(2) Construction work.

(a) Sub grade – before placing pavement structure;

(b) Any layer of pavement structure requiring hubs – before placing next layer; and

(c) Structural excavation – before backfilling.

(b) Allow 1 working day (except as noted) to inspect the following work. Do not continue work on items listed below until receipt of WFLHD 470 indicating the work will not be inspected, the work was inspected and no deficiencies were found, or unless authorized by the CO. Work delayed in excess of the inspection period will be evaluated according to FAR Clause 52.242-14 Suspension of Work.

(1) Forms and reinforcing steel – before placing concrete.

(2) Concrete deck – before placing concrete (perform checks of all deck pour requirements, including dry run results before inspection).

153.07 Acceptance. Contractor quality control will be evaluated under Subsections 106.02 and 106.04 based on the demonstrated ability of the Contractor's quality control system to ensure work meets the contract requirements.

If the Government's testing and inspection (quality assurance) indicate the Contractor's quality control system is ineffective or the plans are not being followed; make immediate improvements to correct inadequacies. Furnish notification in writing of improvements and modifications to the system.

A maximum of 10 percent of the total progress payment amount will be retained and affected project work may be stopped if a quality control plan is not accepted, the plan is not being followed, or work does not meet contract requirements.

Measurement

153.08 Measure the Section 153 items listed in the bid schedule according to Subsection 109.02.

Payment

153.09 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 153 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for the lump sum item will be prorated based on the total work completed for this Section.

Table 153-1
Quality Control Sampling and Testing Requirements

Material or Product	Characteristic	Test Method or Specification	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Section 301 Untreated Aggregate Courses						
Aggregate base Grading D (Aggregate Production)	Gradation	AASHTO T 27 & AASHTO T 11	1 for each 6 hours of production but not less than 2 for each day	Flowing aggregate stream (bin or belt discharge) or conveyor belt	Yes when requested	End of shift
	Fractured faces	ASTM D 5821	"	"	"	"
	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"
	SE/P_{75} Index	See Subsection 101.04	"	"	"	"
Section 309 Emulsified Asphalt Treated Base Course						
Emulsified asphalt treated aggregate base Grading D (Aggregate Production)	Gradation	AASHTO T27 & AASHTO T 11	1 for each 6 hours of production but not less than 2 for each day	Flowing aggregate stream (bin or belt discharge) or conveyor belt	Yes, when requested	End of shift
	Fractured faces	ASTM D 5821	"	"	"	"
	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"
	SE/P_{75} Index	See Subsection 101.04	"	"	"	"
Sections 401, 402, or 403 Hot Asphalt Concrete Pavement						
Aggregate(1) (Aggregate Production))	Gradation	AASHTO T 27 & AASHTO T 11	1 for each 6 hours of production but not less than 2 for each day	Flowing aggregate stream (bin or belt discharge) or conveyor belt	Yes, when requested	End of shift
	Fractured faces	ASTM D 5821	"	"	"	"
	Fine Aggregate Angularity(2)	AASHTO T 304, Method A	"	"	"	"
	Flat & Elongated Particles(2)	ASTM D 4791	"	"	"	"
	Sand equivalent	AASHTO T 176 Alternate Method No. 2, Referee Method	"	"	"	"
Sections 404 Minor Hot Asphalt Concrete						
Asphalt mixture	Compaction (Roadway paving)	ASTM D 2950	1 every 300 meters each lift	In place	No	End of shift

(1) If aggregate is separated into two or more stockpiles, sample and test each stockpile.

(2) Not required for Section 402 or 403 aggregate.

03M01/02/08

Section 154.— CONTRACTOR SAMPLING AND TESTING

Construction Requirements

154.02 Sampling. Add the following to the first paragraph:

When samples are required at the Vancouver Laboratory, send to

Material Section
Western Federal Lands Highway Division
610 East Fifth Street
Vancouver, Washington 98661

If samples are sent other than normal delivery vendors, call 360.619.7747 or 360.619.7592 before delivery. Deliveries will be accepted from 7 a.m. to 2:30 p.m. PT (Monday - Friday).

Access to the government complex is controlled, check-in is required at the main building entrance located on East Fifth Street. Directions will be given for delivery of samples.

The sampling frequencies and reporting times are listed in the individual sections ordering the work. See Subsections 301.03, 309.03, 401.03, and 403.03 for additional sampling and testing requirements.

154.03 Testing. Add the following:

The testing schedule is listed in the individual sections ordering the work.

154.04 Records. Delete the text of the second and third sentences and substitute the following:

The time for furnishing test results is listed in the individual sections ordering the work.

154.04A Laboratory Trailer and Test Equipment. (Added Subsection.)

A Government-furnished laboratory trailer with testing equipment is offered for use on this project. To take advantage of this offer, address a request in writing to the Construction Management Analyst (Western Federal Lands Highway Division, 610 East Fifth Street, Vancouver, WA 98661), within 30 days after award of contract. Failure to do so will terminate the offer.

The laboratory trailer, License No. DOT 40931 and testing equipment are located at Western Federal Lands Highway Division, 610 East Fifth Street, Vancouver, Washington. The specifications for the trailer are as follows:

- Width = 3.0 meters
- Length = 11.0 meters
- Height = 3.7 meters
- Gross Vehicle Weight (GVW) = 6,125 kilograms
- Tongue Weight = 2,045 kilograms
- Ball Requirements = 58.74 millimeters (2 5/16 inch)
- 3 axles with electric brakes

Before the trailer will be released for delivery, hauling vehicles must meet the following requirements:

- 2.27 ton (2.5 ton) GVW minimum;
- Ball height of 450 millimeters (18-inches) from ball to ground;
- Safety chains;
- Brake control (normal and break-away);
- Wiring harness for lights and brakes;
- Wide load signs;
- Transportation permits, if required; and
- Spare wheels and tires for trailer (USC 8-inch x 14.5-inch).

Provide an authorization from the Contractor to accept delivery of the trailer.

Provide 14 day written notice before arriving to pickup the trailer. Pickup, return, and inspection of the trailer and equipment may be scheduled between the hours of 7 a.m. and 3:30 p.m., Monday through Friday, except holidays. Notify the CO 48 hours before returning the trailer to the Vancouver office.

A list of testing equipment may be obtained by calling the Contracts Section at 360.619.7520, e-mailing at contracts@mail.wfl.fha.dot.gov, or by fax at 360.619.7932.

Determine if the laboratory trailer and testing equipment are adequate to perform all testing required by the Contract. Check equipment (especially scales and gyratory compactor) and recalibrate as necessary after transporting the trailer. Submit written documentation to the CO that the equipment is properly calibrated.

A rental fee of $400 per month will be deducted from progress payments, except during non-work periods on the project in excess of 30 days. Fees will begin 5 days after receipt of trailer from the Vancouver office. The fee will be prorated for periods less than one month at $20 per day.

Return the laboratory trailer and equipment to Western Federal Lands Highway Division office in Vancouver, Washington within 14 days of the project being determined substantially complete or the rental fee will increase to $50 per day. Fee assessments will include the day of return to the Vancouver office.

Trailer and equipment will be inspected for damage or missing items. An invoice will be sent for the cost of replacing missing or damaged equipment and restoring the trailer to a working condition, less reasonable wear and tear. Costs incurred will be deducted from the final payment. A maximum of 30 days will be required to inspect the trailer and equipment after it is returned to Vancouver.

Follow the requirements of FAR Contract Clauses 52.245-1 - Property Records and 52.245-4 - Government-Furnished Property (Short Form) and as follows.

(a) Provide a representative to accept written responsibility for the trailer and equipment when it is checked out from the Vancouver office.

(b) Testing equipment has been checked and calibrated to applicable specifications. Furnish any additional equipment required to perform tests not supplied with the laboratory trailer. Repair or replace equipment during use that requires calibration or does not meet specifications, due to wear and tear. Assume no responsibility for reasonable wear and tear to laboratory trailer and testing equipment upon final return to the Government. All equipment will remain or become the property of the Government.

(c) Assume responsibility and bear costs of transporting, installing, repairing and maintenance of the trailer and equipment in a workable condition. Obtain all necessary permits. Adhere to requirements of the Laboratory Trailer Manual. Adequately anchor the awning to prevent damage. Do not perform tests in the trailer until it has been leveled and blocked according to the Laboratory Trailer Manual.

(d) The trailer is wired with a 200-amp service box and contains a 90-gallon water tank. Provide a clean water supply, a 220-240 volt, 60 cycle commercial electric source, or a 220-240 volt, 60 cycle single phase ac regulated electrical supply of at least 60 kilowatts, and a supply of propane gas.

(e) Provide 48-hour notice to the CO before transporting the trailer from the project.

Payment

154.07 Delete the text of the fifth paragraph and substitute the following:

Payment for all or part of this item may be retained, if Government verification testing invalidates the Contractor testing or the CO determines that documentation of sampling and testing is not adequate.

03M12/21/06

Section 155.— SCHEDULES FOR CONSTRUCTION CONTRACTS

Delete this Section and substitute the following:

Description

155.01 This work consists of scheduling and monitoring all construction activities. Follow the requirements of FAR Clause 52.236-15, Schedules for Construction Contracts.

Construction Requirements

155.02 Preliminary Work Plan. Do not begin work, except mobilization, traffic control, and Section 637 work, without an accepted preliminary work plan.

A preliminary work plan is a written narrative of contract activities for the first 45 days after the Notice to Proceed has been issued. Include the following:

- A title page stating the contract number, task order number, project number, project name, Contractor name, current fixed completion date, date of submittal, submittal number, and *"Preliminary Work Plan"*;
- Describe work to be done within each activity including the type and quantity of equipment, labor, and materials to be used;
- Describe planned production rates by pay item quantities (e.g. cubic meters of roadway excavation per day);
- Describe the number of work days per week, holidays, number of shifts per day, and number of hours per shift. Include all calendars used in the schedule module;
- Estimate periods during which an activity is idle or partially idle. Include beginning and end dates;
- Describe expected and critical delivery dates for equipment or material that can affect timely completion of the project; and
- Identify the Vendor, Supplier, or Subcontractor to perform an activity. State assumptions made in scheduling their work.

Submit 3 copies of a preliminary work plan at least 7 days before the preconstruction conference. Within 7 days after the preconstruction conference, the preliminary work plan will be accepted or rejected. If rejected, submit a revised plan within 3 days.

155.03 Initial Construction Schedule. Prepare a construction schedule according to Subsection 155.04. Submit 3 paper copies and one electronic copy of the initial construction schedule within 20 days after the Notice to Proceed has been issued. In case of discrepancy, the paper version will govern over the electronic version of the schedule.

Show completion of work within the contract time.

Allow 7 days for approval or rejection of the schedule. If rejected, submit a revised schedule within 7 days.

Use the approved initial construction schedule as the baseline for the first construction schedule update.

A maximum of 10 percent of the total progress payment amount will be retained if an acceptable schedule is not received within 30 days after the Notice to Proceed is issued.

155.04 Construction Schedule. A construction schedule is a Critical Path Method (CPM) schedule and a written narrative. Include the following:

(a) A CPM schedule including the following:

(1) A title page or header block with the contract number, [INSERT task order number,] project number, project name, Contractor name, current fixed completion date, date of submittal, and submittal number;

(2) Show activity descriptions. Define and code activities to the contract pay items. Include activities for submittals, submittal reviews, fabrication, and deliveries. Do not include activities for continuous, non-critical items such as flagging, traffic control, QA/QC, etc;

(3) Show activity durations. Break activities into subtasks such that no activity duration exceeds 30 calendar days. Break longer activities into two or more activities distinguished by location or some other description;

(4) Show early start and finish dates;

(5) Show late start and finish dates;

(6) Show total float and free float;

(7) Show predecessors;

(8) Use a time scale to graphically show the work scheduled for performance;

(9) Show the sequence and interdependence of all activities; and

(10) Identify the critical path.

Float is a shared commodity and is not for the exclusive use of the contractor or the Government. Either party has the full use of float until it is depleted.

(b) A written narrative stating the basis and assumptions underlying the schedule including:

(1) Describe work to be done within each activity including the type and quantity of equipment, labor, and materials to be used;

(2) Describe planned production rates by pay item quantities (e.g. cubic meters of roadway excavation per day);

(3) Describe the number of work days per week, holidays, number of shifts per day, and number of hours per shift. Include all calendars used in the schedule module;

(4) Estimate periods during which an activity is idle or partially idle. Include beginning and end dates;

(5) Describe expected and critical delivery dates for equipment or material that can affect timely completion of the project; and

(6) Identify the Vendor, Supplier, or Subcontractor to perform an activity. State assumptions made in scheduling their work.

155.05 Updated Construction Schedule. Prepare a construction schedule according to Subsection 155.04. Submit three paper copies and one electronic copy of an updated construction schedule for acceptance by the 15th day of each month or when:

(a) A delay occurs in the completion of a critical (major) activity;

(b) A delay occurs which causes a change in the critical path for the CPM schedule;

(c) The actual prosecution of the work is different from that represented on the current construction schedule;

(d) There is an addition, deletion, or revision of activities caused by a contract modification; or

(e) There is a change in the schedule logic.

Show completion of work within the contract time.

Allow 7 days for approval or rejection of the schedule. If rejected, submit a revised schedule within 7 days.

Use the approved initial or previous construction schedule as the baseline for the current construction schedule update.

A maximum of 10 percent of the total progress payment amount will be retained if an acceptable schedule is not received by the 15th day of the month.

155.06 Records. Submit a list of all records and documents that track progression of work. Indicate who will be responsible for maintaining the records and where the records will be located.

Provide the following documents:

(a) Notification of Completion of Work. Submit a completed WFLHD 470 *Notification of Completion of Work* when work is ready for inspection by the Government according to Subsection 153.06.

(b) Construction Operations Report. For each day of work, submit a completed "*Contractor's Daily Record of Construction Operations"* (Form WFLHD 465) or an approved alternate form within one day of the work being performed.

"I certify that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record."

For an electronic version of the form go to:

http://www.wfl.fha.dot.gov/other/it/forms/wflhd465A.pdf.

155.07 Acceptance. Construction schedules, records, and documents will be evaluated under Subsection 106.02.

Measurement

155.08 Measure the Section 155 items listed in the bid schedule according to Subsection 109.02.

Payment

155.09 The accepted quantities will be paid at the contract price per unit of measurement for the Section 155 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Progress payments for construction schedule will be paid as follows:

(a) 25 percent of the item amount, not to exceed 0.5 percent of the original contract amount, will be paid after the construction schedule is accepted.

(b) Payment of the remaining portion of the lump sum will be prorated based on the total work completed.

03M04/07/06

Section 156.— PUBLIC TRAFFIC

Construction Requirements

156.03 Accommodating Traffic During Work. Add the following:

Accommodate public traffic on the North Park Road and collector roads, Lizard Creek Campground Access Road, Teton Park Road and collector roads, Spread Creek Access Road, and Eastside Highway as follows:

(a) Close turnouts according to approved operations staging and storage areas in Subsection 105.04**(c)**.

(b) Adjust operations to stagger traffic through one-lane sections so that traffic is not stopped in both lanes, unless approved by the CO.

(c) Limit construction caused delays to 30 minutes to any vehicle passing through each of three project traffic areas (including delays for lane closures). The three project traffic areas are as follows, (1) North Park Road Area includes work under Phase II and Snake River Bridge (Option B), (2) Included work under North Park Road at the Moran Shoulder Widening, Moran Entrance Repair and Eastside Highway, Buffalo Fork Riprap (Option A)and (3)the Pathway Project Area includes the Teton Park Road. Do not delay traffic on weekends unless approved in writing by the CO.

(d) Allow emergency traffic to pass through each project area without delay. The Park dispatcher will coordinate emergency vehicle needs directly with the Traffic and Safety Supervisor by radio. Maintain radio contact during traffic delaying work. The Park will provide an NPS radio to the Contractor's Traffic and Safety Supervisor for this purpose.

(e) Park forces will begin placement of snowpole markers along the North Park Road in early Fall. Coordinate construction activities with the CO to allow access for these activities.

(f) Due to high traffic volumes submit a specific temporary traffic control proposal according to Subsection 155.04 for approval at least 21 days prior to beginning work at the following intersections and areas:

(1) North Park Road (28+125), Lizard Creek Campground junction

(2) Eastside Highway (40+775 to 41+085)

(g) Road closures on North Park Road from 28+200 to 38+330 will be allowed between May 15 and June 15, from 11 p.m. to 6 a.m., weekdays only, and Teton Park Road, from KP 5.56 to KP 6.76, September 2 to October 31, 2008, from 11 p.m. to 6 a.m., weekdays only, except during periods listed in Subsections 108.01**(a)** and 156.06**(k)**. For road closure operations, submit a road closure plan 21 days prior to closure to the CO for approval. In the road closure plan, identify closure points, closure devices and signing, construction activities to take place during closure, and closure dates.

156.04 Maintaining Roadways During Work. Amend as follows:

Delete the text of paragraph **(c)** and substitute the following:

(c) Snow removal to facilitate the work is the Contractor's responsibility, except as noted below. Snow removal to provide public access is the responsibility of the maintaining agency and will be performed at the maintaining agency's discretion. Allow the maintaining agency access to perform snow removal as described in paragraph **(g).**

- North Park Road, Snake River Bridge (Option B). Provide snow removal for public traffic across the Snake River Bridge, a minimum of 45 meters beyond traffic control limits.

Add the following:

(g) Grand Teton National Park maintenance forces will provide snow removal services as follows:

(1) All Park roads outside the project limits will be plowed according to their normal priority opening schedule. Variable snow conditions do not guarantee a fixed opening date.

(2) The Spread Creek Access Road, the access road to Snake River Pit, the Lizard Creek Campground Road, and the portion of North Park Road north of the junction with Flagg Ranch Road at 40+318, are not plowed.

(3) Roads within the project limits, except those noted in paragraph **(g)(2)**, will be plowed providing one or more of the following conditions applies:

(a) The existing surfacing has not been removed.

(b) At least 37 millimeters of asphalt pavement has been placed.

(c) The road surface has been treated according 204.07

Add the following to the last paragraph:

Maintain the Spread Creek Access Road to correct roadway rutting and/or loss of surfacing material caused by Contractor's traffic and operations. Prior approval by the CO is required before performing each maintenance operation. Maintenance includes hauling and placing of roadway aggregate method 2, conforming to Section 308. Maintenance also includes blading of the roadway, as needed, to restore the roadway to the original elevation, surface quality, and cross-slope. Measure maintenance under Sections 622 and 623.

156.05 Maintaining Roadways During Non-Work Periods. Delete the text of this Subsection and substitute the following:

Maintain roadways and traffic control for public traffic during all periods when work is not in progress. Snow removal to provide public access is the responsibility of the maintaining agency, except for areas having one way traffic and concert barriers. Provide snow removal in these areas according to Subsection 156.04 (b).

Prior to winter shutdowns, remove equipment, all stockpiled materials, and other hazards from all roads and turnouts within the project limits and from the Lizard Creek storage area.

Prior to winter shutdowns, provide paved conditions suitable for snow plowing by the Park on North Park Road and Teton Park Road. Paved conditions consist of either the original undisturbed pavement, hot asphalt pavement, or road surface treated according 204.07. Provide a minimum surface width of 7.4 meters on two lane sections, widened to include all turning lanes and through lanes near intersections. Remove equipment, all stockpiled materials, and other hazards from the roadway and turnouts before suspending operations for the winter.

156.06 Limitations on Construction Operations. Amend as follows:

Delete paragraph **(g)** and substitute the following:

(g) Provide two-way radio communications between Traffic and Safety Supervisor, flaggers, and pilot cars. Provide two-way radio communications between flaggers unless flaggers are able to see each other and communicate. Citizen band radios are not acceptable. Make radio equipment available to the CO as necessary.

Add the following:

(k) Do not perform construction operations during the following periods:

(1) Between 6 p.m. Friday and 6 a.m. the following Tuesday of the Memorial Day and Labor Day weekends.

(2) Between 6 p.m. Wednesday, July 2nd and 6 a.m. Monday, July 7th, 2008, and between 6 p.m. Thursday, July 2nd and 6 a.m. Monday July 6th, 2009.

(3) Between 6 p.m. Friday and 6 a.m. the following Monday, during July and August. Construction operations between 6 p.m. Friday and 6 a.m. the following Monday may be permitted at other times if requested in writing and authorized by the CO.

Do not perform construction operations which interfere with public travel on the roadway on any other holiday.

(l) For purposes of facilitating traffic, perform grading or surfacing part-width at a time. Make the width not under construction available to public traffic under alternate one-way control. Furnish pilot car and driver, or flaggers, or both, as ordered by the CO, to direct traffic through sections of road under one-way control.

(m) Limit shoulder excavation and subexcavation to one side of the roadway at any time. Except for paving as allowed in Subsection 401.15, complete construction of adjacent traffic lanes to the same elevation by the end of each day.

(n) Limit speed of all vehicles associated with this project to the posted speed for each road use. Limit haul speeds on unposted roads to 20 mph. Pursuant to FAR Clause 52.236-5, remove from the project any driver who receives two traffic citations for exceeding the posted speed limit while driving within Grand Teton National Park.

(o) Drivers will not be permitted to work more than 12 hours per day on this or any other project. Work includes the maintenance or repair of construction vehicles.

(p) Maintain existing guardrails and bridge railings until removal is necessary for construction. Use a temporary barrier, or other appropriate shielding or warning device while the guardrails and bridge rails are absent. Install new guardrails and bridge rails as soon as possible to minimize risk to the public.

(q) Grand Teton Park Pathways, Phase I. Construction access to the pathway can only be made at all intersections of roadway intersections except noted below. Additional construction access areas are shown on the plans. Limited construction access will be allowed at the following roadway intersections 0+007.42, 1+700, and 6+060 due to administrative traffic. Coordinate access times and dates with the CO.

156.07 Nighttime Operations. Add the following:

Construction operations are allowed at night, except as limited in Subsections 108.01.

156.08 Traffic and Safety Supervisor. Amend as follows:

Add the following after the second sentence:

The traffic and safety supervisor will be required to attend a Park training session on Park radio use. The Park will provide a pre-programmed hand held radio to the traffic and safety supervisor to facilitate communication between the Park, emergency services, and the contractor

Delete the text in paragraph **(f)** and substitute the following:

(f) Coordinate and ensure that all traffic control devices are furnished, installed, maintained, removed, stored, replaced, relocated and cleaned according to Subsection 635.03 **(a)** through **(i)**.

Add the following:

(i) Inspect traffic control devices, including those in staging, storage, material sources, disposal areas, as follows:

(1) Daily during daylight hours when daylight work is being performed;

(2) Daily during hours of darkness when nighttime work is being performed;

(3) Weekly during daylight hours and hours of darkness when work is suspended for periods of more than one week except when the project has been shut down for the winter, and weekly during the hours of darkness when only daylight work is being performed. During periods of winter suspension, inspect only as requested by the CO;

(4) Additional inspections, day or night, as directed by the CO; and

(5) Provide reports of inspections to the CO in an acceptable format within 2 days.

(j) Before winter suspension, conduct an inspection of the project with the CO to ensure proper provisions are made for winter travel during the period of suspension.

(k) Operate vehicles while transporting the portable traffic control devices and personnel including construction signs, barricades, drums, cones, tubular markers and other traffic control devices.

(l) Provide temporary flagging assistance.

(m) Perform a "Sweep" at the beginning of each nightly road closure period allowed in Subsection 156.03**(g)**. Sweeps will be conducted to insure that all public traffic is vacated from the closure area. Immediately report to the CO any person(s) who refuse to leave the closure area.

03M12/13/05

Section 157.— SOIL EROSION CONTROL

Description

157.01 Add the following:

This work also includes preparation of a water quality monitoring plan and the sampling, testing, and reporting of water quality tests.

Construction Requirements

157.03A Water Quality Monitoring Plan. (Added Subsection.)

Submit a water quality monitoring plan, for approval by the CO seven (7) days prior to construction. Provide a plan that addresses the following requirements:

(a) Identify location of turbidity sampling and provide pH level monitoring at Snake River Bridge (at Flagg Ranch).

(b) Perform construction activities and maintain sediment control devices in such a way that, turbidity levels comply with all permits contained in Section H, and pH levels do not exceed 1 pH unit above natural levels for more than two hours within a 24 hour period.

(c) Identify a Water Quality Supervisor, other than the Superintendent, for the project who can plan, perform, and report turbidity and pH measurements in conformance with industry accepted standards and procedures.

(d) Identify the points of sampling and the order in which sampling will occur to ensure a representative comparisons at a given point in time. Obtain and test comparative samples immediately upstream of the in-stream work area. Test water quality levels downstream of the construction activities. For turbidity levels, sample at the point where the turbidity plumes spreads to encompass the entire width of the channel. For pH levels, sample at the point where the grout plume spreads to encompass the entire channel width or at the point when the grout plume disperses visually. Test turbidity and pH levels prior to other tributaries influence into the waters.

(e) Identify sampling points at each station (depth and distance(s) from bank) which will provide an average value for the station. For sampling in areas where it could be unsafe to wade, indicate how samples will be taken to reflect actual conditions at the time of sampling.

(f) Indicate how visual information, such as variability of sample turbidities across the stream cross section, will be recorded and reported.

(g) Specify daily sampling at all other times during contract time.

(h) Identify other construction activities or precipitation events that may warrant additional monitoring.

(i) List actions to be taken when turbidity and/or pH levels are exceeded.

(j) Specify a report format and process for submitting reports to the CO.

157.05A Turbidity Controls and Containment Devices. (Added Subsection.)

For the North Park Road, Snake River Bridge (Option B) deploy turbidity controls and devices for containing any drill cuttings & fluids, grout, and accidental of discharge of debris while working in or above the stream Install, maintain, and remove devices according to manufacturer's instructions. Furnish turbidity controls and containment devices with appropriate connectors, fasteners and anchoring devices. Provide adequate overlap to ensure complete containment if turbidity controls and containment devices are furnished in segments.

Schedule work to allow a minimum of 5 days for water to settle containments before turbidity controls and containment devices are removed. Install and remove devices within in-stream work windows listed in Subsection 108.01(h).

157.09 Diversions. Add the following:

Submit a water diversion plan for approval by the CO seven (7) days in advance of pipe or riprap installations where live waterways are encountered. The water diversion plan should include locations of and sizes of diversion pipes, berms, ditches, sandbags and any other means of controlling water. Diversion pumping operations are not permitted.

157.11 Temporary Turf Establishment. Delete the text of this Subsection and substitute the following:

Apply seed according to Subsection 625.07 at a rate of 8 kilograms of PLS(pure live seed) per hectare . Protect and care for seeded areas, including watering.

157.12 Inspection and Reporting. Add the following

Monitor stream turbidity and pH levels as indicated in the approved plan. For turbidity measurements; use one or more turbidimeters which measure turbidity through ranges of at least 0 to 10, 0 to 100, and 0 to 1000 NTUs, with a minimum accuracy of ±2 percent or ±0.1 NTU. For pH measurements; use pH probes that measure pH through a range of 0 to 14 pH units with a maximum 0.01 unit resolution and accuracy. If more than one turbidimeter or pH probe is used on the project, ensure that all measuring devices are calibrated against a common standard and provide common test results.

Prepare daily reports of turbidity test results and submit them to the CO by 12 noon of the day following the inspections. Include the results of any turbidimeter and pH calibration tests.

North Park Road, Snake River Bridge (Option B) an Authorization for Temporary Turbidity Increase (Section H, Permits) has been acquired. Do exceed permit thresholds for an aggregate 17 day period. For work outside of 17 day period comply with all other permits. Provide weekly summary reports via fax to: Mr. David Waterstreet, Watershed Program Supervisor, Wyoming DEQ, 307-777-5973

Inform the CO immediately of any turbidity or pH levels in excess of the limitations specified in Subsection 157.03A **(b)**.

157.13 Maintenance and Cleanup. Add the following to the beginning of the third paragraph:

After construction activities for the work season are completed, and prior to winter shutdown listed in Subsection 108.01**(d)**, remove silt fence designated by the CO that is in the path of the Continental Divide Snowmobile Trail. Reinstall after April 15 of the following year prior to resuming construction activities. Perform this work under Sections 622 and 623.

Leave the silt fence, abutting the Spread Creek Pit, in place after project completion.

157.14 Acceptance. Add the following:

Water quality monitoring will be evaluated under Subsection 106.02.

Measurement

157.15 Amend as follows:

Delete the third and fourth paragraph and substitute the following:

Measure temporary turf establishment by the hectare on the ground surface.

Measure diversion channels by the meter.

Add the following:

Do not measure turbidity and pH level monitoring for direct payment.

Do not measure turbidity and sediment containment system for North Park Road Snake River Bridge (option B) for direct payment.

Section 158.— WATERING FOR DUST CONTROL

Construction Requirements

158.03 General. Add the following:

Water may be obtained from Spread Creek at the Spread Creek Pit site if the Contractor elects to use the Spread Creek Pit. Water may be pumped from the creek to a holding tank. Obtaining water from this location is subject to the timing restrictions for use of the Spread Creek Pit as noted in Subsection 105.02.

Water may also be obtained from the Snake River. Use the existing access road, which intersects the North Park Road at 39+600, and accesses the riverbank 22 meters west of the north abutment of the Snake River Bridge. Water may be pumped from the river to a holding tank.

Water may also be obtained from Cottonwood Creek. Use Climber Ranch access road, which intersects Teton Park Road at 7+850 (Pathway Mainline), and accesses the stream bank at Northwest corner of existing bridge. For water pumping at Cottonwood creek provide a screen on pump intake. Screen opening will not exceed 1.58 millimeters. Other apparatuses may be used to ensure that particles larger than 1.58 millimeters do not enter pump intake.

Permits for obtaining water are contained in Section H, Permits

158.03 General. Delete the second paragraph and substitute the following:

When applied according to Subsection 158.03(a), measure water for dust control by the cubic meter in the hauling vehicle, by metering, or by weighing and converting to the unit of measure using standard conversion factors.

Measurement

158.05 Delete the second paragraph and substitute the following:

When applied according to Subsection 158.03(a), measure water for dust control by the cubic meter in the hauling vehicle, by metering, or by weighing and converting to the unit of measure using standard conversion factors.

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03M01/01/04

Section 201.— CLEARING AND GRUBBING

Construction Requirements

201.01 Add the following:

This work includes the salvaging of selected trees for use under Section 647.

201.03 General. Add the following:

After staking of clearing limits, notify the CO, 10 days before clearing activities, to allow the marking of trees for utility installation, snag removal and migratory bird nests. After clearing limits have been approved by the CO set additional or modify clearing stakes as described in Section 152. Specified trees or brush containing migratory bird nests are not to be cleared until July 15th of any year. Specified trees and brush will be flagged by the CO.

Salvage and stockpile all sound snags larger than 200 millimeters in diameter at breast height (DBH) and selected trees 200 to 300 millimeters DBH. Stockpile snags or logs for subsequent placement on completed slopes, according to Sections 647, in designated storage areas beyond topsoil windrows and clearing limits. Snags may be obtained from outside the clearing limits and those will be marked by the CO. No vehicular or equipment access will be allowed beyond the clearing limits. Salvage trees and snags in random lengths from 3.5 to 10 meters and, when necessary, limb one side. Salvage sound snags and dead trees before using live trees. Prepare salvaged logs for landscaping in such a manner as to provide irregular broken ends. Do not disturb top soiled areas. To the extent possible, handle landscape logs in a manner that minimizes the loss of limbs.

In instances where more than 50% of a tree's root zone is removed, flush cut the tree at an angle such that the cut surface of the stump is not visible from the roadway.

Limit clearing to 0.6 meters beyond the slope stakes within parking areas. Trees designated to remain will be marked by the CO.

Place approved delineators according to Section 635, at each designated stockpile area before winter closure.

201.04 Clearing. Add the following:

(e) Do not push trees over with heavy equipment except trees that will be salvaged. Remove vegetation and salvge trees in a manner that does not compact or gouge the topsoil. Do not mix topsoil with subsoils. Do not drive or park on conserved topsoil before or after removal.

(f) Trees at the toe of embankments must be removed if more than half the root zone is covered by fill material.

(g) No vehicular or equipment access will be allowed beyond the clearing limits.

201.05 Grubbing. Amend as follows:

Add the following to **(a)**:

Break down grasses, shrubs, sagebrush, and other minor brush less than 1 meter in height and woody plants and trees less than 50 millimeters in diameter by chipping, mowing, or shredding. Incorporate this material with the conserved topsoil.

Add the following to **(e)**:

Conserve topsoil before removing stumps unless approved by the CO. Remove topsoil according to Subsection 204.05

201.06 Disposal. Add the following:

Dispose of trees less than 200 millimeters in diameter according to Subsection 203.05 or remove from the Park.

Measurement

201.08 Add the following:

Where the new construction follows the existing road, exclude that portion of the old roadbed within the clearing and grubbing limits from the measurement width. Also exclude the area of any body of water and non-vegetated portions of its shoreline within the clearing and grubbing limits.

03M06/04/07

Section 203.— REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Description

203.01 Add the following:

This work includes:

(a) Removing and stockpiling metal/wood gates, signs, and stone masonry headwalls;

(b) Removing and reusing asphalt pavement; and

(c) Removing pipe culvert, concrete curbs, concrete pads, pipe end sections, guardrail, sign posts, concrete box culvert and wingwalls, and bridge superstructure

Construction Requirements

203.03 Salvaging Material. Add the following:

All existing signs and support posts are to remain in place until construction operations require removal.

Requirements for disassembly and removal of stone masonry headwalls for stockpiling are described in Subsection 620.03.

Deliver all items identified for removing and stockpiling to the Moose Warehouse near the Park Headquarter located approximately 23 kilometers north of Jackson, Wyoming on US Highway 26. The CO will determine and mark the exact location of storage site before use.

203.04 Removing Material. Delete the text of this Subsection and substitute the following:

(a) General. Saw cut sidewalks, curbs, gutters, pavements, and structures when partial removal is required.

Construct structurally adequate debris shields to contain debris within the construction limits. Do not permit debris to enter waterways, travel lanes open to public traffic, or areas designated not to be disturbed.

Raze and remove all buildings, foundations, pavements, sidewalks, curbs, fences, structures, and other obstructions interfering with the work and not designated to remain.

Where part of an existing culvert is removed, remove the entire culvert upstream from the removal. The remaining downstream culvert may be left in place if no portion of the culvert is within 1 meter of the subgrade, embankment slope, or new culvert or structure; and the culvert ends are sealed with concrete.

Remove structures and obstructions in the roadbed to 1 meter below subgrade elevation. Remove structures and obstructions outside the roadbed to 0.5 meter below finished ground or to the natural stream bottom.

Abandon existing manholes, inlets, catch basins, and spring boxes according to Subsection 604.07.

Except in excavation areas, backfill and compact cavities left by structure removal with backfill material to the level of the finished ground. Backfill excavated areas according to Subsection 209.10. Compact backfill according to Subsection 209.11.

(b) Concrete removal by mechanical impact methods. Saw cut 20 millimeters deep along all boundaries of repair areas.

Use power-driven hand tools to remove existing concrete with the following restrictions:

(1) Do not use jack hammers heavier than 140 newtons.

(2) Do not operate jack hammers and mechanical chipping tools at an angle in excess of 45^{o} from the surface of the slab.

(3) Do not use chipping hammers heavier than nominal 70-newton-class to remove concrete from beneath reinforcing bar.

Where the bond between existing concrete and reinforcing steel is destroyed, remove all concrete adjacent to the steel to provide at least 20-millimeter clearance for the new concrete to bond to the steel.

Use hand tools (hammers and chisels) to remove final particles of concrete or to achieve the required depth.

After removal of deteriorated and unsound concrete, sandblast all exposed structural steel, reinforcing steel, and concrete surfaces that will be in contact with repair material. Remove all rust and foreign material. Clean the sound concrete surface by flushing with a high-pressure water jet or oil-free compressed air.

(c) Reinforcing steel. Do not cut or damage reinforcing steel designated to remain in place. Repair or replace all damaged or severely deteriorated bars.

Clean all exposed reinforcing steel that is to remain in place. Remove all rust and corrosive products, including oil, dirt, concrete fragments, laitance, loose scale, and other coatings that may destroy or inhibit the bond with new concrete.

If cleaned reinforcing steel will be exposed for more than 7 days, protect the steel from corrosion and contamination. If the steel becomes corroded or contaminated, clean the steel immediately before the concrete pour.

203.05 Disposing of Material. Amend as follows:

(a) Remove from the project. Add the following:

Dispose of items designated for removal outside of the Park and National Forest System Lands.

(b) Burn. Delete the first paragraph of this Subsection and substitute the following:

Clearing debris and other native woody materials except treated timber and plastic may be stockpiled and burned within the Park at the Colter Bay burn pile (SE ¼, NW ¼, Sec. 36 T46N, R115W) or Kelly burn pile (NW ¼ , Sec 10, T42N, R115W) with approval by the CO. The National Park Service Fire Management Office conducts burning of these piles annually. To establish permitted quantities, locations and scheduled burns contact Lisa Elenz, Fire Management Officer, Grand Teton National Park at (307) 739-3310.Clearing debris and other native materials, including untreated timber and lumber, may also be burned at the Spread Creek Pit, subject to the availability of burning permits. Obtain all necessary burning permits from the US Forest Service, and furnish a copy of the burning permits to the CO before burning. To obtain permits, contact Kevin Pfister, Jackson Ranger District Fire Management Officer, at (307) 739-5425.

Burning permits may not be issued in some years due to dry conditions or other factors.

(c) Bury. Delete the text of part **(c)** and substitute the following:

Do not bury any materials within the Park, except asphalt materials as select topping according to Section 204. Do not bury concrete or asphalt materials in the Spread Creek Pit or the Snake River Pit. Ashes left from burning materials permitted under paragraph **(b)** above may be buried in the Spread Creek Pit.

Add the following:

(d) Hazardous material. North Park Road, Snake River Bridge (Option B). The paint on the existing steel truss and bridge railing has not been tested for lead content. Sample and test paint for lead content and concentration. Provide test results to the CO upon receipt of test results.

Comply with the following if test results are positive for lead content:

- 29 CFR 1926.62 - OSHA Construction Industry Standards for Lead;
- 40 CFR 50.6 - EPA National Primary and Secondary Ambient Air Quality Standards for Particulate Matter;
- 40 CFR 50.12 - EPA National Primary and Secondary Ambient Air Quality Standards for Lead;
- CFR Parts 260-268 - Resource Conservation and Recovery Act (RCRA);

At least 28 days before beginning removal of the steel truss and bridge railings, submit a written plan for acceptance that details the measures to be used for protecting the environment, public, adjacent property, and workers. Include in the plan the following:

(1) A detailed containment and disposal plan for removed material and paint debris. Include details of bridge railing and other attachments to the structure

(2) Specific safety measures to protect workers from site hazards including falls, fumes, fires, or explosions.

(3) Include specific safety measures to comply with 29 CFR 1926.62, 40 CFR 50.6, 40 CFR 50.12, and 40 CFR Parts 260-268. Document compliance upon request.

(4) A qualified person responsible for ensuring that all necessary health, safety, and containment measures are enacted and maintained.

(e) Reuse of material. Reduce asphalt pavement and asphalt curbs and incorporated into select topping material according to Sections 204 and 413. Stockpile the asphalt material according to Subsection 105.04.

03M01/01/04

Section 204.— EXCAVATION AND EMBANKMENT

Description

204.02 Definitions. Delete the text of paragraph **(c)** and substitute the following:

(c) Conserved topsoil. Excavated material conserved from the roadway excavation and embankment foundation areas that is reasonably free from hard soil, rock, clay, toxic substances, litter, or other deleterious material, and is suitable for growth of grass, cover crops, or native vegetation. Topsoil refers to the uppermost soil horizon, usually 50 to 200 millimeters deep, which includes organic duff and other materials capable of supporting vegetation. Break down live vegetation as described in Subsection 201.05(a), and incorporate into the topsoil during removal. Rocks less than 100 millimeters and branches less than 50 millimeters in diameter may be left in the topsoil.

Materials

204.03 Add the following to the material list:

Boulders	705.08

Construction Requirements

204.04 Preparation for Roadway Excavation and Embankment. Add the following:

Wheel or saw cut the existing pavement vertically to provide a neat match line before excavation.

204.05 Conserved Topsoil. Delete the text of this Subsection and substitute the following:

Remove topsoil before excavating an area. Remove the topsoil in one pass if possible. Use equipment capable of excavating small isolated pockets of topsoil. Hand rake topsoil in areas where topsoil cannot be mechanically removed. Do not mix topsoil with subsoils. Do not compact or drive upon topsoil during removal.

Stockpile topsoil in windrows less than one meter high along outer edge of the disturbance or in turnouts within the vicinity that it was removed. If it is impractical to windrow topsoil adjacent to the disturbed area, remove the topsoil and stockpile in windrows at locations according to Subsection 105.04, except for topsoil removed in designated wetland. Identify removal areas and stockpiles so that topsoil may be replaced in the same locations.

Topsoil must be placed according to Section 624 the same construction season in which it was removed. Stockpiling of topsoil removed from the Spread Creek Pit site will be permitted over the winter shutdown. Seed the stockpiled topsoil from Spread Creek Pit before winter shutdown according to Section 625.

Haul excess topsoil to the nearest area requiring topsoil but lacking in quantity or to locations determined by the CO.

Utilize excess topsoil from Grand Teton Park Pathways according to Section 305

Place conserved topsoil on completed slopes according to Section 624. Seed and mulch all top soiled slopes before winter shutdown according to Section 625.

Do not conserve topsoil on North Park Road at locations identified as "topsoil waste" on the plans. Do not mix topsoil waste with adjacent topsoil.

Dispose of topsoil waste according to Subsection 204.14.

Construction Requirements

204.06 Roadway Excavation. (a) General. Delete the text of the second paragraph and substitute the following:

Excavate material suitable for backfill or other purposes in a sequence that permits the placement of the excavation directly into its final position or in stockpiles for subsequent placing.

Material to be excavated includes the excavation necessary for the placement of select topping as shown on the plans.

All material excavated from North Park Road 33+000 to 35+740 is unsuitable material. Dispose of unsuitable material according Subsection 204.14

204.07 Subexcavation. Delete the text of this Subsection and substitute the following:

Limit excavation to the dimensions shown on plans or as designated by the CO. Dispose of unsuitable materials according to Subsection 204.14. Install pipe culverts, collector pipes and outlet pipes in a subexcavation area at the same time subexcavation work in that area is being performed. Backfill the subexcavation with select borrow. Compact select borrow according to Subsection 204.11.

Provide a temporary 60 millimeter minimum depth driving surface according to Section 408, no later than:

- 6 p.m. of the same day subexcavation work has begun, if the following day is not a workday.
- 6 p.m. of the day following the beginning of subexcavation work, if that following day is a workday.

Provide 9 meter U-channel steel posts with object marker, type 1, at subexcavation limits before winter shut down. Mount object marker within 300 millimeters of post top.

204.09A Select Topping. (Added Subsection.)

Use asphalt pavement and asphalt curbs removed under Section 203 and as select topping according to the following:

- Reduce material until all particles pass a 37.5 square millimeter opening; and
- The gradation and liquid limit requirements of Subsection 704.08 does not apply to this material.

Conform to the gradation and liquid limit requirements of Subsection 704.08 for all other material used as select topping. Shape and compact according to the following requirements:

(a) Shaping and Compaction for Asphalt Material. Shape the select topping with a motor grader, mechanical spreader, paver, or grade trimmer of approved type. Shape the material to the defined elevation and cross slope and to the dimensions shown in the typical section.

Provide equipment used for finishing capable of automated setting of grade and cross-slope.

After shaping, compact the material by establishing a roller pattern using in-place density from an uncorrected nuclear gauge. Continue the roller pattern until the final roller pass adds no more than 8 kg/m^3 to the previous in-place density. Provide additional roller passes to determine that a "false break" or leveling-off point is not used for compaction density. Reestablish the roller pattern when mixture properties in the processed material change.

(b) Shaping Compaction for other Material. Shape and compact according to Subsections 204.11 and 204.13

204.10 Embankment Construction. Amend as follows:

(a) General. Add the following:

For North Park Road 27+857 to 33+000 and other areas that do not specify select topping, construct the top 300 millimeters of the embankment with 150 millimeter minus material conserved from the roadway cuts.

(b) Embankment within the roadway prism. Add the following:

Construct the top 300 millimeters of the embankment with 150-millimeter minus material conserved from the roadway cuts.

204.13 Sloping, Shaping, and Finishing. (a) Sloping. Delete the first paragraph and substitute the following:

Leave all slopes with roughened surfaces as they are being constructed. Construct slopes to staked slope ratios, but shape to blend with surrounding natural features of the terrain, such as rock outcroppings, draws, and slopes.

Sculpt slopes to produce irregular ledges, shelves, and planting pockets for vegetation by steepening the nominal slope ratio in staggered locations suitable for placement of topsoil and vegetation.

(1) Earth slopes. When shown on the plans, add material to the fill slopes to:

(a) Obtain varying and undulating contoured slope.

(b) Obtain rounding at toe of fills

(c) Flatten selected slopes to blend with existing landforms or promote revegetation

(d) Round tops and bottoms of all slopes, including the slopes of drainage ditches.

(2) Rock slopes. Construct rock slopes to simulate surrounding rock outcroppings. Round material overlaying solid rock to the extent practical. Scale all rock slopes.

(3) Boulder Placement. Place boulders in the slope face at locations staked by the CO. Bury boulders to a depth of 1/3 their mass. Lay boulders on firm beds and backfill as required using hand operated equipment.

204.14 Disposal of Unsuitable or Excess Material. Delete the text of the first paragraph and substitute the following:

Unsuitable or excess material may be disposed of at the disposal areas listed in Subsection 105.04 If material is disposed of off the project, obtain approval from CO and comply with Subsection 107.10 as well as any applicable local, State, and Federal laws.

Measurement

204.16 Add the following to paragraph **(a)(1)***(a)* Roadway prism excavation:

> Use the volume shown in the plan column on the summary of quantities sheet of the plans. The volume is subject to adjustments resulting from changes to slope stakes. See Subsection 152.03**(c)**, Slope stakes and references.

03M01/18/08

Section 209.— STRUCTURE EXCAVATION AND BACKFILL

Measurement and Payment

209.13 Delete the fourth paragraph and substitute the following:

Foundation fill ordered by the CO will be measured and paid for according to the method of measurement and agreed price established in the Contract Modification authorizing the work.

Table 209-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Backfill material (704.03)	Measured and tested for conformance (106.04)	Gradation	—	AASHTO T 27 & T 11	1 per soil type	Source of material	Yes	Before using in work
		Moisture-density	—	AASHTO T 99, method C[1]	"	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	—	Before placing next layer
Bedding material (704.02)	Measured and tested for conformance (106.04)	Moisture-density	—	AASHTO T 99, method C[1]	1 per soil type	Source of material	Yes	Before using in work
		Compaction	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	—	Before placing next layer
		Classification	—	AASHTO M 145	1 per soil type	Processed material before incorporating into work	Yes, when requested	Before using in work

(1) Minimum of 5 points per proctor.

Table 209-1 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Foundation fill (704.01)	Measured and tested for conformance (106.04)	Moisture-density	—	AASHTO T 99, method C[(1)]	1 per soil type	Source of material	Yes	Before using in work
		Compaction (204.11)	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	—	Before placing next layer
Unclassified borrow (704.06)	Measured and tested for conformance (106.04)	Moisture-density	—	AASHTO T 99, method C[(1)]	1 per soil type	Source of material	Yes	Before using in work
		Classification	—	AASHTO M 145	"	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

03M10/04/07

Section 251.— RIPRAP

Construction Requirements

251.03 General. Add the following:

Place riprap under or adjacent to structures before placing prefabricated superstructure units or constructing superstructure falsework.

251.06A Riprap Lined Ditch. (Added Subsection.)

Construct ditch as shown on the plans according to Section 204. Place rock on the prepared surface to form a well-graded mass with a minimum of voids. Place or rearrange individual rock by mechanical or hand means to obtain a compacted blanket as detailed on the plans.

251.06B Energy Dissipator. (Added Subsection.)

An energy dissipator is an erosion control device constructed of rock placed on a prepared surface to form a well-graded mass with a minimum of voids. Construct the energy dissipator as shown on the plans.

Place rock material by methods which avoid displacing the underlying material. Place or rearrange individual rock by mechanical or hand means to obtain a compacted blanket as detailed on the plans.

251.06C Culvert Outlet Control System. (Added Subsection.)

A culvert outlet control system is an erosion control device constructed of rock placed on a prepared surface to form a well-graded mass with a minimum of voids. Construct the culvert outlet control system as shown on the plans.

Place rock material by methods which avoid displacing the underlying material. Place or rearrange individual rock by mechanical or hand means to obtain a compacted blanket as detailed on the plans.

Delete Table 251-1 and substitute the following:

Table 251-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Riprap (705.02)	Measured and tested for conformance (106.04)	Apparent specific gravity & absorption	—	AASHTO T 85	1 per material type	Source of material	Yes	Before using in work
		Coarse durability index	—	AASHTO T 210	"	"	"	"
Mortar	Measured and tested for conformance (106.04)	Making test specimens Compressive strength	—	AASHTO T 23 & T 22	1 per mix design	—	Yes, when requested	Before using in work

Section 252. — Special Rock Embankment and Rock Buttress

Description

252.01 Add the following:

This work also consists of constructing rockery retaining walls. Rockeries are formed of interlocking, dry-stacked rocks without reinforcing steel, mortar, or concrete.

Materials

Add the following:

252.02 Conform to the following Subsections:

Riprap	705.02
Stone for rockery walls	705.07
Rockery backfill	704.14

Construction Requirements

252.02A General. (Added Subsection)

For rockery wall construction, survey according to Section 152 and verify the limits of the wall installation. Perform structure excavation according to Section 209. Provide stone materials from sources described under Section 105.

Grade the foundation for a width equal to the required stones. Subexcavate as shown or to firm material as adjusted by the CO to fit field conditions. Excavate the foundation in sections such that the rockery can be constructed in one shift or one day's work, unless shoring is provided for the purpose to support the excavation.

252.03A Placing Stones. (Added Subsection)

For rockery wall construction, place the first course of rock on firm, unyielding material with full contact between the rock and the subgrade. Slightly incline the wall foundation and subsequent stone layers toward the back of the wall. Offset the stones to produce a random pattern and place rocks so that there are no continuous joints in either the vertical or lateral direction. Place the stones in a stable orientation, with minimal voids. Key each rock into adjacent rocks by utilizing the natural irregular shapes of the rock.

Construct the wall using class 2 through 5 stones as shown on sheet 1G.13 of the plans. Use class 1 stones and rock spalls to chock larger stones solidly in position and fill voids between the stones. Increase the stone size from top to bottom using a uniform range of sizes. Construct the top 1 meter of the wall using class 2 and 3 stones and increase the stone class size for each succeeding one meter by one over the course above until the bottom of the wall or class 5 stone is reached. Provide a uniform finished rockery face with projections limited to 150 millimeters beyond the neat line.

252.03B Backfilling. (Added Subsection.)

Backfill the rockery wall with rockery backfill concurrent with the construction. Backfill and compact material according to Subsections 209.10 and 209.11 respectively.

252.04 Acceptance. Add the following:

Stone for rockeries, riprap, and backfill materials will be evaluated under Subsection 106.02 and 106.04.

Stone placement will be evaluated under Subsections 106.02 and 106.04.

Structure excavation will be evaluated under Section 209.

Measurement

252.05 Add the following:

Measure rockery walls by the square meter of front wall face

Do not measure structure excavation and backfill for payment.

Table 252-1
Sampling, Testing and Acceptance Requirements

Section 262 - Rockery Walls										
Type of Acceptance (Subsection)	**Material or Product**	**Characteristic**	**Category**	**Test Methods/ Specifications**	**Tolerance**	**Sampling Frequency**	**Point of Sampling**	**Split Sample**	**Reporting Time**	**Remarks**
Certification of Compliance (Subsection 106.03)	Rockery backfill	Gradation	—	See Subsection 714.04	Subsection 714.04	each source	Source of material	—	Prior to use in work	Provide copy of test reports
Visual Inspection (Subsection 106.02)	Rockery Boulders	Stone mass and size	—	See Subsection 705.07	Subsection 705.07	Each wall	Each wall	—	—	—
	Rockery backfill	compaction		See Subsection 252.05	Subsection 252.05	Each wall	Each wall	—	—	—

Section 255.— MECHANICALLY-STABILIZED EARTH WALLS

Description

255.01 Delete the text and substitute the following:

This work consists of design and construction of wire-faced mechanically stabilized earth walls.

Material

255.02 Add the following to the material list:

Plastic pipe	706.08
Rock facing	705.07

255.02A Suppliers. (Added Subsection.)

Furnish a commercially available, wire-faced, MSE wall system. Provide detailed information from potential suppliers for review and evaluation. Allow three weeks for review and evaluation of the wall system submitted. Systems previously submitted and accepted are:

Hilfiker Welded Wire Wall™
Hilfiker Retaining Walls
1902 Hilfiker Lane
Eureka, CA 95503-5711
US: (800) 762-8962
FAX: 707.443.2891

Terratrel® Wire-Faced Earth Retention System
The Reinforced Earth Company
1331 Airport Freeway, Suite 307
Euless, TX 76040-4150
Tel: (817) 283-5503
Fax: (817) 283-6931

MSE Plus™
SSL
4740 Scotts Valley Drive, Suite E
Scotts Valley, CA 95066
(831) 430-9300

Provide information for review and evaluation that includes:

(a) Examples of successful design, construction, and in-service performance with a public agency, including the name, address, and telephone number of an agency contact person.

(b) Narrative descriptions and photos.

(c) Limitations and constraints of the system.

(d) Details of wall elements.

(e) Laboratory and field test results and certifications which support the system design criteria.

(f) A field construction manual describing, with illustrations where necessary, the step-by-step construction sequence.

(g) Document compliance with the design guidelines for MSE walls in the:

(1) AASHTO Standard Specifications for Highway Bridges.

(2) Mechanically Stabilized Earth Walls and Reinforced Soil Slopes Design and Construction Guidelines Publication No. FHWA NHI-00-043.

255.02B Design. (Added Subsection.)

The designer/supplier furnishing the proposed wall system is responsible for the internal, sliding, and overturning stability of the wall. Maximum allowable bearing capacity and general geotechnical information is contained in WFLHD Geotechnical Memorandum 22-07. Do not qualify the responsibility for the design or restrict the use of the drawings or calculations for the proposed alternative. Indemnify the Government from all claims for infringement of proprietary rights by others without the consent of the patent holders or licensees.

Design the wire faced MSE walls in accordance with design guidelines provided in the documents listed in section 255.02A (g) above. Special design requirements for the wire-faced MSE wall are shown on the plans. Account for the weight of the stone facing in the wall design. All steel reinforcement and facing wall components shall have a minimum galvanized coating thickness grade of 85. If welded wire reinforcement elements are used, design wall facing with the same welded wire diameter.

The Government has developed the wall facing and layouts according to National Park Service criteria. Minor changes may be made to the step heights or lengths to facilitate alignment with the wire-faced MSE wall system. Make notations on the shop drawings where any modifications are made to the Government-supplied layouts.

255.02C Submittal. (Added Subsection.)

Submit a design proposal using an approved supplier.

Furnish design calculations. A registered professional engineer shall perform the design and sign and seal the calculations and drawings. Submit design calculations and working drawings according to Subsection 104.03.

Include all details, dimensions, quantities, ground profiles, and cross sections necessary to construct the wall. The submittal shall include, but not be limited to, the following items:

(a) A plan view of the wall identifying:

(1) The offset from the construction centerline to the face of the wall at its base at all changes in horizontal alignment.

(2) The limits of widest module, mesh, or strip.

(3) The centerline of any drainage structure or drainage pipe behind, passing through, or passing under the wall.

(b) An elevation view of the wall showing:

(1) The elevation and distance along the face of the wall for all horizontal and vertical break points or steps.

(2) Elevations at the wall base, the top of any leveling pads and/or footings.

(3) The type of panel or depth of module.

(4) The length and type of reinforcement.

(5) The distance along the face of the wall to where changes in length of the reinforcement occur.

(6) Distance along the face of the wall to all steps in the wall base, footings or leveling pads.

(7) The original and final ground line.

(8) A material list and summary of quantities.

(c) Typical cross section views showing:

(1) The type of panel or depth of module.

(2) The wall batter.

(3) The length, spacing, and type of reinforcement.

(4) The original and final ground line.

(5) Details for connecting the rock facing to the wire-faced MSE wall.

(d) General notes for constructing the wall.

(e) Horizontal and vertical curve data affecting the wall. Match lines or other details to relate wall stationing to centerline stationing.

(f) Dimensions and schedules of all reinforcing steel including reinforcing bar bending details, dowels, and/or studs for attaching the facing.

(g) Details and dimensions for foundations and leveling pads including steps in the footings or leveling pads.

(h) Characterization of wall backfill soil properties (granular backfill and/or contractor designed).

(i) Details constructing walls around drainage facilities.

(j) Details for terminating walls and adjacent slope construction.

(k) Details for constructing the pedestrian railing through the reinforcement elements

(l) Design notes including an explanation of any symbols and computer programs used in the design of the walls. Specify the factors of safety for overturning, sliding, tensile strength, and pullout. Specify the bearing pressure beneath the stabilized earth mass and calculate the factor of safety for bearing capacity.

(m) Other design calculations.

Process all submissions through the Contractor unless the Contractor gives written permission for the wall designer/supplier and the CO to communicate directly.

Submit three sets of the wall drawings and calculations with the initial submission. One set will be returned with any comments. If revisions are necessary, make the necessary corrections and resubmit three revised sets.

Allow three weeks (21 days) for review and approval of the contractors design.

When the drawings are approved, furnish five sets of the drawings.

Construction Requirements

255.03 General. Add the following

Perform excavation with equipment capable of removing the material while preventing escapement outside of the construction limits. Minimize disturbance to adjacent areas according to Subsection 107.11.

255.04 Wall Erection. (b) Wire-faced walls. Delete the text of this paragraph and substitute the following:

Construct the wall in accordance with the recommendations provided by the designer/supplier of the proposed wall system. Place reinforcement elements within 25 millimeters vertically above the corresponding connection elevation at the wall face. Connect soil reinforcement elements to the wall facing units and take out any slack in the connections before placing backfill.

Do not exceed a vertical tolerance of 25 millimeters for an individual lift, and an overall wall (top to bottom) vertical tolerance of 40 millimeters per 3 meters of wall height. Do not deviate from the designed wall batter by more than 40 millimeters in 3 meters of wall height. Do not deviate more than 50 millimeters at any point in the wall from a 3 meter long straightedge placed horizontally or vertically on the theoretical plane of the design face.

255.05A Rock Facing. (Added Subsection.)

Furnish stone from sources provided under Section 105.

Construct the facing to emulate the pattern and character of a rockery wall according to section 252.03A. Construct the facing using stone class sizes 2 through 4 as illustrated on the sheet 3G.1 of the plans. Use class 1 stones to chock larger stones solidly in position and fill voids between rocks. Select stones as necessary to provide the desired shape and promote stability. Place any concrete used in connecting the rock facing to the MSE wall so that it is not readily visible between blocks. Do not leave concrete on the exposed stone faces.

255.06 Acceptance. Add the following:

Rock facing material will be evaluated under Subsection 106.02 and 106.03.

Rock facing construction will be evaluated under Subsections 106.02 and 106.04.

Structure excavation and backfill will be evaluated under Subsection 209.12. See Table 255-1 for minimum sampling, testing and acceptance requirements.

Table 255-1 – Add the following:

Section 255 - Mechanically Stabilized Earth Walls

Type of Acceptance (Subsection)	Material or Product	Characteristic	Category	Test Methods / Specifications	Tolerance	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remark,
Measured and tested for conformance (Subsection 106.04)	Wall Construction	Line and grade	-	Field measured	Vertical and Horizontal not to exceed ± 50 millimeters from reference stakes	As determined by the CO	Installation	-	-	-
	Excavation	Elevation and dimension specified	-	Field measured	Horizontal not to exceed ± 75 millimeters from reference stakes. Vertical not to + 50 millimeters from reference stakes	Each foundation	Installation	-	-	-
	Backfill (704)	Electrochemical Requirements	-	AASHTO T 288 AASHTO T 289 AASHTO T 290 AASHTO T 291	-	1 per 350 cubic meters	Source of Material	Yes	Before Using in Work	-

Section 270. — SUBSEALING AND STABILIZATION (ADDED SECTION)

Description

270.01 This work consists of stabilization of stream bed materials adjacent to a bridge pier by working over water, drilling holes, grouting, and inserting reinforcing bars.

Material

270.02 Conform to the following Subsections:

Fly ash	725.04
Grout	725.22(f)
Portland cement	701.01
Reinforcing Bars	709.01(b)
Water	725.01

Construction Requirements

270.03 Equipment.

(a) Drilling equipment. Use rock drills or other devices capable of drilling straight and true 150 millimeter minimum diameter drill holes. Drill holes to the elevations shown on the plans. Temporarily case the holes in collapsing ground if necessary to keep them open. Construct a work platform that is capable of supporting the drilling equipment and grouting operation. The platform may be crane supported or supported from the streambed. Log the material encountered in each drill hole according to depth.

(b) Grouting equipment. Furnish a grout plant with a positive displacement cement injection pump and a colloidal mill. Use the injection pump capable of continuous pumping at rates as low as 6.05 liters per minute.

Use a mixer of a type that ensures complete and uniform mixing of the material used and with sufficient capacity to continuously feed the pumping unit at its normal pumping rate.

Provide a volume measurement system at the mixer or the pump, preferably both, that will measure volumes mixed or pumped to an accuracy of 0.005 cubic meters. Furnish accurate operating pressure gages at both the pump and the injection point to measure the grout pressure.

Measure the dry materials by weight or volume if delivered in bulk.

Furnish all necessary hoses, fittings, and control to provide a positive seal during grout injection.

270.04 Grout installation. Inject grout at the lowest point of the drill hole. Pump grout through grout tubes, casing, or drill-rods. Record the quantity of the grout and grout pressures.

Install grout and reinforcing bar within 4 hours of drilling hole by pumping the grout mixture at a pressure of 0.023 to 0.034 MPa per meter of depth measured at the point of injection. Take measures to insure pressurized grout injection occurs. Fill alternate holes and allow to set before filling the remaining holes. Inject grout in 900 millimeter increments beginning at the bottom of the hole. Continue grouting at each stage without interruption until:

(a) Less than 0.015 cubic meters per minute grout take; or

(b) 0.25 cubic meters of grout pumped. If pumping is terminated due to excess grout take, grouting may be resumed as directed by the CO after the grout has been allowed to set.

Allow grout to set for a minimum of 7 days before any material are backfilled in their immediate vicinity.

270.05 Monitoring. Keep accurate records of the grouting operation including depth, quantity of grout, and injection pressure for each stage at each injection point. Make records available to the CO.

Monitor the stream bed surface during grouting operations. If the stream bed surface heaves during the grouting operations, halt the grout injection and adjust the lifts, pressure, or both.

Monitor the stream bed surface with a monitoring point adjacent to each grout hole. Maximum allowable stream bed surface deflection is 25 millimeters. Halt the grout injection if the maximum deflection at the stream bed occurs. Grout injection may be resumed at the direction of the CO after the gout has been allowed to set, if the allowable 'grout take' has not been achieved.

270.06 Cleanup. Clean up grout spills and leave the work site in a condition that is satisfactory to the CO by the end of the work shift.

270.07 Acceptance. Material for grout will be evaluated under Subsection 106.03. Installation of grout evaluated under Subsection 106.02 and 106.04.

Installation of drilled holes will be evaluated under Subsection 106.04.

Measurement

270.08 Measure the Section 270 items listed in the bid schedule according to Subsection 109.02.

Payment

270.09 The accepted quantities will be paid at the contract price per unit of measurement for the Section 270 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

03M03/28/07

Section 301.— UNTREATED AGGREGATE COURSES

Construction Requirements

301.03 General. Delete the text of this Subsection and substitute the following:

Prepare the surface on which the aggregate course is placed according to Section 204 or 303 as applicable.

After a representative quantity of aggregate is produced, submit proposed target values for the appropriate sieve sizes along with a representative 150-kilogram sample at least 14 days before incorporating the aggregate into the work. Submit the target values to the CO. Submit the aggregate sample to the Vancouver Laboratory, using the mailing tags provided by the CO.

Set target values for base aggregate within the gradation ranges shown in Table 703-2A for the required gradation. List the percent passing for all sieve sizes shown in Table 703-2A. Target values for non-specification sieves are necessary for performing "The Humphres Method of Granular Soils."

301.04 Mixing and Spreading. Delete the text of this Subsection and substitute the following:

Use the optimum moisture content from the Humphres test performed by the Government. Mix the aggregate and adjust the moisture content to obtain a uniform mixture with a moisture content within one percent of the optimum moisture content. Spread and shape the mixture on the prepared surface in a uniform layer.

Do not place the mixture in a layer exceeding 150 millimeters in compacted thickness. When more than one layer is necessary, compact each layer according to Subsection 301.05 before placing the next layer. Route hauling equipment uniformly over the full width of the surface to minimize rutting or uneven compaction.

If at any time the calculated mean value for any tested sieve differs from the target value by more than the allowable deviation for that sieve, terminate placement and resubmit new target values and another aggregate sample to the Vancouver Laboratory for a new Humphres.

301.05 Compacting. Delete the first sentence of this Subsection and substitute the following:

The Government will determine the maximum density and optimum moisture according to the test procedures described on pages 92 to 98 of Highway Research Board Bulletin No. 319, dated 1962, “The Humphres Method of Granular Soils”. Use the data provided to determine the maximum density based on the gradation of field compaction samples.

301.08 Acceptance. Delete the text of Table 301-1 and substitute the following:

Table 301-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality 703.05(a)	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	—	AASHTO T 96	1 per type & not less than 5 per source of material [1]	Source of material	Yes, when requested	Before using in work
		Sodium sulfate soundness loss (course & fine)	—	AASHTO T 104	"	"	"	"
		Durability index (coarse & fine)	—	AASHTO T 210	"	"	"	"
		Accelerated weathering	—	WFLHD-DMSO	"	"	"	"
Subbase courses grading A & B	Statistical (106.05)	Gradation		AASHTO T 27 & T 11	1 per 1000 t	From window or road bed after processing	Yes	4 hours
		4.75 µm	I					
		75 µm	I					
		Other specified sieves	II					
		Fractured faces	I	ASTM D 5821	"	"	"	"
		Sand equivalent	—	AASHTO T 176 Alternate Method No.2, Referee Method	"	"	"	"
		SE/$P_{75\ \mu m}$ index	I	—	"	"	"	"

Table 301-1 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Surface course aggregate	Statistical (106.05)	Gradation		AASHTO T 27 & T 11	1 per 1000 t	From windrow or roadbed after processing	Yes	4 hours
		4.75 mm	I					
		425 µm	I					
		75 µm	I					
		Other specified sieves	II					
		Fractured faces	I	ASTM D 5821	"	"	"	"
		Liquid limit	II	AASHTO T 89	"	"	"	"
		Plasticity index	I	AASHTO T 90	"	"	"	"
	Measured and tested for conformance (106.04)	Moisture-density (max. density)	—	AASHTO T 180, method D [2]	1 per type & source of material	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	—	Before placing next layer

(1) Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use. Obtain samples representative of aggregates being furnished. Include rock type and sample location on test reports.

(2) Minimum of 5 points per proctor.

03M01/01/04

Section 305.— AGGREGATE-TOPSOIL COURSE

Description

305.01 Delete the text of this Subsection and substitute the following:

This work consists of furnishing and placing an aggregate-topsoil course on a prepared shoulder or other prepared surface.

Material

305.02 Delete the text of this Subsection and substitute the following:

Conform to the following Subsection:

Aggregate-topsoil	703.20
Water	725.01

Construction Requirements

305.04 Mixing, Placing, and Compacting. Delete the text of this Subsection and substitute the following:

Furnish a mixture of 50±10 percent aggregate and 50±10 percent topsoil by volume with sufficient water for compaction.

Mix the components into a uniform mixture. Spread the mixture on the prepared surface in a uniform layer. Shape the mixture to the line, grade, and cross-section. Remove all clods and stones greater than 2 inches in diameter.

Uniformly compact the mixture so that it does not exhibit heaving, pumping, rutting, or shearing. Compaction tests may be waived by the CO if acceptable compaction is demonstrated.

Remove all material from the pavement surface upon completion.

Conserved topsoil from Grand Teton Park Pathways (0+007.402 to 12+687.898) may be used for the production of aggregate-topsoil course.

305.05 Acceptance. Delete the text of this Subsection and substitute the following:

See Table 305-1 for sampling and testing requirements.

Aggregate-topsoil material will be evaluated under Subsection 106.03. Placement of material will be evaluated under Subsection 106.02 and 106.04.

Section 306.— DUST PALLIATIVE

Measurement

306.07 Delete all paragraphs below this heading and substitute the following:

Measure dust palliative application by the kilometer or by the square meter.

Measure dust palliative material (emulsified asphalt, lignosulfonate, calcium chloride, calcium chloride flake, and magnesium chloride) by the metric ton. Mass measurements apply to the diluted quantity.

03M03/28/07

Section 309.— EMULSIFIED ASPHALT TREATED BASE COURSE

Construction Requirements

309.03 General. Delete the text of this Subsection and substitute the following:

Prepare the surface on which the treated aggregate base course is placed according to Section 204 or 303 as applicable.

After a representative quantity of aggregate is produced, submit proposed target values for the appropriate sieve sizes along with a representative 150-kilogram sample at least 14 days before incorporating the aggregate into the work. Submit the target values to the CO. Submit the aggregate sample to the Vancouver Laboratory, using the mailing tags provided by the CO.

Set target values for base aggregate within the gradation ranges shown in Table 703-2A for the required gradation. List the percent passing for all sieve sizes shown in Table 703-2A. Target values for non-specification sieves are necessary for performing "The Humphres Method of Granular Soils."

If target values and aggregate samples have been submitted under Section 301 and the values have not been changed, use the compaction curve as established according to Subsection 301.03.

309.04 Mixing and Spreading. Delete the text of this Subsection and substitute the following:

Use a stationary pugmill with weighing, volumetric, or other gauging equipment capable of accurately controlling the material entering the mixer. Interlock the controls for the aggregate feed with the emulsified asphalt and water controls to ensure uniform introduction of material into the mixer. Use the optimum moisture content from the Humphres test performed by the Government.

Add the aggregate and water to the mixer before the emulsified asphalt. Add 1 percent emulsified asphalt by mass of aggregate. Adjust the total liquid content (emulsified asphalt and water), so that at the time of compaction the total liquid content is within one percent of the optimum moisture content. Mix until all particles are uniformly coated. Haul and place the treated aggregate immediately after mixing. Do not store emulsified asphalt treated aggregates in stockpiles.

Spread the mixture on the prepared surface in a uniform layer. Shape the mixture to the line, grade, and cross-section. Route hauling equipment uniformly over the full width of the surface to minimize rutting or uneven compaction.

If at any time the calculated mean value for any tested sieve differs from the target value by more than the allowable deviation for that sieve, terminate placement and resubmit new target values and another aggregate sample to the Vancouver Laboratory for a new determination of the maximum density and optimum moisture according to the test procedure described on pages 92 to 98 of Highway Research Board Bulletin No. 319, dated 1962, "The Humphres Method of Granular Soils".

309.05 Compacting. Delete the first paragraph and substitute the following:

The Government will determine the maximum density and optimum moisture according to the test procedure described on pages 92 to 98 of Highway Research Board Bulletin No. 319, dated 1962, "The Humphres Method of Granular Soils".

309.08 Acceptance. Delete the text of this Subsection and substitute the following:

Emulsified asphalt treated aggregate base courses will be evaluated according to the following:

When emulsified asphalt treated aggregate base, grading D is produced from Contractor-located sources, the aggregate quality requirements listed in Subsection 703.05 for Los Angeles abrasion, sodium sulfate soundness loss (coarse and fine), durability index (coarse and fine), and accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO) will be evaluated under Subsection 106.04.

Emulsified asphalt treated aggregate course construction will be evaluated under Subsection 106.04.

Compaction and surface tolerance for emulsified asphalt treated aggregate base coarse will be evaluated under Subsection 106.04.

The following aggregate characteristics for emulsified asphalt treated base aggregate mixture will be evaluated under Subsection 106.05 according to the following:

(a) Aggregate gradation. The upper and lower specification limits are equal to the calculated mean of all test results plus or minus the allowable deviations shown in Table 703-2A, except as follows:

(1) If the calculated mean value for any tested sieve exceeds the maximum gradation value shown in Table 703-2A, the upper specification is equal to the maximum gradation value plus the allowable deviation, and the lower specification is equal to the maximum gradation value minus the allowable deviation.

(2) If the calculated mean value for any tested sieve is less than the minimum gradation value shown in Table 703-2A, the upper specification is equal to the minimum gradation value plus the allowable deviation and the lower specification is equal to the minimum gradation value minus the allowable deviation.

(b) SE/P_{75} Index (SEP). The lower specification limit for the SEP is 1.000. See Subsection 101.04 for the definition of this parameter.

(c) Fractured faces. When aggregate is produced from a gravel source, use the specification limit shown in Subsection 703.05**(b)(2)**.

Emulsified asphalt material will be evaluated under Subsection 106.03 subject to the requirements in Subsection 702.09, paragraphs **(a)** and **(b)**.

Preparation of the surface on which the treated aggregate base course is placed will be evaluated under Section 204 or 303 as applicable.

Delete the text of Table 309-1 and substitute the following:

Table 309-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate quality	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	—	AASHTO T 96	1 for each rock type & not less than 5 per source of material (1)	Source of material	Yes, when requested	Before using in work
		Durability index (coarse & fine)	—	AASHTO T 210	"	"	"	"
		Sodium sulfate soundness	—	AASHTO T 104	"	"	"	"
		Accelerated weathering	—	WFLHD-DMSO	"	"	"	"
Emulsified asphalt-treated aggregate base, grading C, D & E	Statistical (106.05)	Gradation		Asphalt content by ignition and AASHTO T	1 per 1000 tons	In-place	Yes, when requested	4 hours
		9.5 mm	I	"				
		4.75 mm	I	"				
		75 µm	I	"	"	"	"	"
		other specified sieves	II	"	"	"	"	"
		Fractured faces	I	ASTM D 5821	"	"	"	"
		Sand equivalent	—	AASHTO T 176 Alternate Method No. 2, Referee Method	"	Belt feed before adding emulsified asphalt	"	"
		$SE/P_{75\ \mu m}$ index	I			—	—	—
Emulsified asphalt-treated aggregate base, grading D	Measured and tested for conformance (106.04)	Compaction	—	AASHTO T 310 or other approved procedures	1 per 500 t but not less than 1 per layer	In-place	—	Before placing next layer
		Moisture-density (max. density)	—	Humphres Method	1 per type & source of material	Material source before using	Yes	Tested by Govt. 14 days prior to use

(1) Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use. Obtain samples representative of aggregates being furnished. Include rock type and sample location on test reports.

03M06/22/07

Section 401.— SUPERPAVE HOT ASPHALT CONCRETE PAVEMENT

Description

401.01 Add the following to the second paragraph:

Asphalt binder grade for this project is PG 58-34.

Construction Requirements

401.03 Composition of Mix (Job-Mix Formula). Delete Table 401-1 and substitute the following:

Table 401-1
Superpave Hot Asphalt Concrete Pavement Design Requirements (AASHTO M323)

Design ESAL (Million)	Gyratory Compaction Level (% Theoretical Maximum Specific Gravity, Gmm) AASHTO R 35			Minimum Voids-in-the-Mineral Aggregate (VMA), %[4]				Voids Filled with Asphalt (VFA), %[5] [6]	Dust-to-Binder Ratio[1]	Minimum Tensile Strength Ratio, AASHTO T 283[2]
				Nominal Maximum Size Aggregate [3]						
	$N_{Initial}$	N_{Design}	N_{Max}	25.0mm	19.0mm	12.5mm	9.5mm			
< 0.3	6 (≤ 91.5 %)	50 (96 %)	75 (≤ 98 %)	12.0	13.0	14.0	15.0	70-80	0.8-1.6	0.80
0.3 to < 3	7 (≤ 90.5 %)	75 (96 %)	115 (≤ 98 %)					65-78		
3 to < 30	8 (≤ 89 %)	100 (96 %)	160 (≤ 98 %)					65-75		
≥ 30	9 (≤ 89 %)	125 (96 %)	205 (≤ 98 %)							

(1) Include non-liquid antistrip, baghouse fines, and other mineral matter added to the mixture. Calculate the ratio using effective asphalt content (calculated by mass of mix).

(2) Prepare specimens in accordance with AASHTO R 35.

(3) The nominal maximum size is one size greater than the first sieve to retain more than 10 percent of the combined aggregate.

(4) When mineral filler or hydrated lime is used, include in the calculation for compliance with the VMA.

(5) For 9.5-millimeter nominal maximum size aggregate mixtures with ≥3 million ESALs, provide a VFA of 73 to 76 percent.

(6) For 25.0-millimeter nominal maximum size aggregate mixtures with < 0.3 million ESALs, provide a VFA ≥ 67 percent.

401.08 Asphalt Preparation. Delete the first paragraph and substitute the following:

Uniformly heat the asphalt binder to provide a continuous supply of the heated asphalt binder from storage to mixer. Do not heat asphalt binder above 185º C.

401.09 Aggregate Preparation. Delete the fourth paragraph and substitute the following:

Control plant operations so the moisture content of the mix behind the paver is 0.5 percent or less according to AASHTO T 110 or AASHTO T 329.

401.16 Pavement Roughness. Delete the title and text of this Subsection and substitute the following:

The CO will measure roughness of the final paved surface course within 21 days after final rolling, of the completed roadway paving, and before placement of any surface treatment. In addition to the pavement roughness type requirements, construct all pavement surfaces to meet the requirements of paragraph **(b)**.

(a) International roughness index (IRI).

The CO will furnish and operate an inertial profiler conforming to AASHTO PP 50 and validated according to AASHTO PP 49. Furnish personnel to provide flagging operations as may be required. The CO will measure the pavement profile (a single trace) in the middle portion of each lane. Analysis of the profile data will be made using the latest version of the Profile Viewer and Analysis (ProVAL) software.

Areas of localized roughness will be identified using a report of continuous IRI with a base length of 7.62 meter. This will yield the IRI of every possible 7.62 meter segment. Any area for which the continuous report exceeds an IRI of 2.367 meters per kilometer will be considered a defective area requiring correction according to paragraph (c).

A report of continuous IRI is defined as the roughness profile from "Profiles from Roughness," TRR 1260, by M. W. Sayers. Its use for detection of localized roughness, as required here, is demonstrated in "Using a Ride Quality Index for Construction Smoothness Specifications," TRR 1861, by M. Swan and S. Karamihas.

An IRI value will be determined for each 0.1-lane kilometer of traveled way. Cattle guards and bridges not being overlayed will be excluded from the calculation of IRI and determination of localized roughness. Measure excluded areas according to **(b)**.

(1) Type III pavement roughness. The CO will measure the roughness of the final paved surface course. Defective areas are 0.1-kilometer segments with IRI values greater than 1.499 meters per kilometer or areas of localized roughness.

The pay factors from Table 401-3 will be used in conjunction with the histogram printout from ProVAL's Smoothness Assurance Analysis option to compute a final pay adjustment. The average pay factor (P_{ave}) is equal to the sum of the products of the individual pay factors shown in Table 401-3 times ProVAL's corresponding histogram percentages, divided by 100. The products will be computed to four decimals and the average pay factor will be rounded to two decimals after summing and dividing by 100.

Table 401-3
Type III Pavement Roughness

IRI (meters/kilometer)	Pay Factor (PF)
Greater than 1.499	Reject(1)
1.499 to 1.420	0.80
1.420 to 1.263	0.90
1.263 to 1.105	0.96
1.105 to 0.947	1.00
0.947 to 0.789	1.03
0.789 to 0.631	1.06
0.631 to 0.473	1.08
Less than 0.473	1.10

(1) Pay Factor when corrections are not allowed equals 0.70.

(2) Type IV pavement roughness. The CO will measure the roughness of the existing surface before construction traffic. The existing surface is the original surface before overlaying, recycling, or milling. The existing IRI will be used to determine the percent improvement for each 0.1-kilometer segment.

The CO will measure the roughness of the final paved surface course. Defective areas are areas of localized roughness or 0.1-kilometer segments having a percent improvement less than 0.9 or 25.4 as determined from Table 401-4.

The percent improvement in IRI will be determined to one decimal place for each 0.1-kilometer segment according to the following formula:

% Improvement = [(Original IRI – Final IRI) / Original IRI] * 100

The pay adjustment factor computed to two decimal places for each 0.1-kilometer segment will be determined from Table 401-4. No deductions will be made for segments where the final IRI value is less than or equal to 1.184 meters per kilometer, provided the final IRI is less than or equal to the initial IRI.

Table 401-4
Type IV Pavement Roughness

Single Lift [1] Percent Improvement (%)	Pay Adjustment Factor [1]	Multi-Lift [2] Percent Improvement (%)	Pay Adjustment Factor [2]
Greater than 48.4	PAF = 7.00	Greater than 61.1	PAF = 7.00
24.8 to 48.4	PAF = 0.2954(%) – 7.30	43.3 to 61.1	PAF = 0.3910(%) – 16.89
12.4 to 24.7	PAF = 0.00	34.0 to 43.2	PAF = 0.00
0.9 to 12.3	PAF = 1.8261(%) – 22.63	25.4 to 33.9	PAF = 2.4419(%) – 83.02
Less than 0.9	Reject [3]	Less than 25.4	Reject [3]

(1) For single lift overlays with no other corrective work such as milling, grinding or preleveling in excess of 25 percent of the surface area the of existing pavement.
(2) For multiple lift operations such as milling, grinding or preleveling followed by one or more lifts of pavement or two or more lifts of pavement without milling, grinding or preleveling.
(3) Pay adjustment factor when corrections are not allowed equals minus 21.0.

(b) Type V pavement roughness (straightedge measurement). Use a 3-meter metal straight edge to measure at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 6 millimeters in 3 meters between any two contacts of the straightedge with the surface.

(c) Defective area correction. Correct defective areas from **(a)** or **(b)** above. Obtain approval for the proposed method of correction. Grinding is an acceptable method of correction provided the area ground does not exceed 40 square meters per location, and is limited to an average of 1 location per lane kilometer with no more than two locations per lane kilometer. Grinding in excess of these limits is not an acceptable method of correction unless it is accompanied by an overlay or a single-course surface treatment over the entire length of the project.

If grinding is allowed, grind the pavement surface with a diamond blade machine and apply a fog seal according to Subsection 409.10. The endpoints of the areas where a grinder is to be applied must be optimized via grinding simulation. Grinding simulation must be done with the purpose of grinding the minimum area needed to decrease the roughness to acceptable limits.

If no corrections are allowed, no adjustment will be made to the average pay factor ($P_{\underline{ave}}$) determined from Table 401-3 or the pay adjustment factors determined from Table 401-4.

If corrections are allowed, the CO will re-measure the pavement profile once at no expense to the Contractor. Subsequent re-measures will cost $2,000. Data from analysis of the most recent profile measurement will be used to determine the P_{ave} determined from Table 401-3 or the pay adjustment factors determined from Table 401-4.

Each area of localized roughness remaining in the final paved surface course, regardless of whether corrections are allowed or not, will be accessed an additional deduction of $200.

Payment

401.19 Delete the last paragraph and substitute the following:

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type III pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined as follows:

Type III Pay Adjustment = $[(P_{ave} - 1.0000) * (UBP) * (FCQ)] - [200(NLRA)]$

where: P_{ave} = average pay factor from Table 401-3
UBP = unit bid price
FCQ = final contract quantity
NLRA = number of localized roughness areas remaining in final pavement surface course

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement type IV pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined as follows:

Type IV Pay Adjustment = $[(\sum PAF) * (UBP)] - [200 * (NLRA)]$
where: $\sum PAF$ = summation of individual pay adjustment factors from Table 401-4
UBP = unit bid price
NLRA = number of localized roughness areas remaining in final pavement surface course

Delete Table 401-5 and substitute the following:

Table 401-5
Asphalt Binder Pay Factor Table

Tests on Original	Specifications (See 702.01)	Pay Factor =					
		1.05	1.00	0.95	0.90	0.75	Reject
Dynamic Shear Rhoemeter, kPa	≥ 1.00	≥ 1.12	1.00 to 1.11	0.99 to 0.88	0.87 to 0.71	0.70 to 0.50	< 0.50
Tests after Rolling Thin Film Oven (RTFO)							
Dynamic Shear Rheometer, kPa	≥ 2.20	≥ 2.584	2.583 to 2.200	2.199 to 1.816	1.815 to 1.432	1.431 to 1.048	< 1.048
Tests on Pressure Aging Vessel (PAV)							
Dynamic Shear Rheometer, kPa	≤ 5,000	≤ 4,711	4,712 to 5,000	5,001 to 5,289	5,290 to 5,578	5,579 to 5,867	> 5,867
Bending Beam Rheometer, s, MPa	≤ 300	≤ 262	263 to 300	Use DT	Use DT	Use DT	≥ 600
Bending Beam Rheometer, m	≥ 0.300	≥ 0.313	0.312 to 0.300	0.299 to 0.287	0.286 to 0.274	0.273 to 0.261	< 0.261
Direct Tension[(1)], %	≥ 1.00	N/A	≥ 1.00	0.99 to 0.86	0.85 to 0.71	0.70 to 0.56	< 0.56

(1) Use Direct Tension (DT) for payment if s-values from the Bending Beam Rheometer are between 300 and 600 MPa.

Delete Table 401-6 and substitute the following:

Table 401-6
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	—	AASHTO T 96	1 per type & not less than 5 per source of material [1]	Source of materials	Yes	Before producing
		Sodium sulfate soundness loss (coarse & fine)	—	AASHTO T 104	"	"	"	"
		Accelerated weathering	—	WFLHD-DMSO	"	"	"	"
		Durability Index (coarse & fine)	—	AASHTO T 210	"	"	"	"
Asphalt concrete (mix design)	Measured and tested for conformance (106.04)	Gradation	—	AASHTO T 27 & T 11	1 per submitted mix design	Stockpiles	Yes	28 days before producing
		VMA	—	AASHTO R 35	"	—	—	"
		VFA	—	"	"	—	—	"
		Voids	—	"	"	—	—	"
		TSR	—	AASHTO T 283	"	—	—	"

Table 401-6 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Asphalt binder	Measured and tested for conformance (106.04)	Quality	—	Subsection 702.01	1 per submitted source & mix design	In line between tank & mixing plant	2 – 1-liter samples	—
					1 per 2100 t of mix, but not less than 5 samples			
Asphalt concrete mixture (all)	Measured and tested for conformance (106.04)	Mix temperature	—	—	First load & as determined by the CO thereafter	Hauling vehicle before dumping or windrow before picking up	—	Upon completing test
Hot asphalt concrete pavement (control strip)	Statistical (106.05)	Gradation		AASHTO T 308 & T 30	3 minimum	Behind paver before compacting	Yes	4 hours
		4.75 mm	I					
		600 µm	I					
		75 µm	I					
		Other specified sieves	II					
		Asphalt content	I	AASHTO T 308 & T 329	"	"	"	"
		VMA	I	AASHTO R 35	"	"	"	"
		VFA	I	"	"	"	"	"
		Core density [2]	I	AASHTO T 166	5 minimum	In-place after compacting	Cores to CO after determining specific gravity & compaction	—
	Measured and tested for conformance (106.04)	Maximum specific gravity (density)	—	AASHTO T 209	3 minimum	Behind paver before compacting	Yes	24 hours

Table 401-6 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Hot asphalt concrete pavement (production)	Statistical (106.05)	Asphalt content	I	AASHTO T 308 & 329	1 per 700 t	Behind paver before compacting	Yes	4 hours
		VMA	I	AASHTO R 35	"	"	"	"
		Core density[2]	I	AASHTO T 166	"	In-place	Cores to CO after determining specific gravity	24 hours
	Measured and tested for conformance (106.04)	VFA	—	AASHTO R 35	"	Behind paver before compacting	Yes	4 hours
		Gradation	—	AASHTO T 308 & T 30	"	"	"	"
		Maximum specific gravity (density)	—	AASHTO T 209	At least 1 per day	"	"	"
Hot asphalt concrete pavement (final surface)	Statistical (106.05)	Type I & II smoothness	I	FLH T 504	See Subsection 401.16	See Subsection 401.16	—	14 days after final paving

Table 401-6 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Hot asphalt concrete pavement (final surface)	Measured and tested for conformance (106.04)	Type III & IV roughness	—	AASHTO PP 49 & PP 50	See Subsection 401.16	See Subsection 401.16	—	14 days after final paving

(1) Furnish a minimum of five reports, but not less than one report per rock type for each source. Reports must be dated within 1 year of intended use. Obtain samples representative of aggregate being furnished. Include rock type and sample location on test reports.

(2) Cut core sample from the compacted pavement according to AASHTO T 230, method B. Fill and compact the sample holes with asphalt concrete mixture. Make cores 150 millimeters in diameter. Perform specific gravity and thickness tests on cores and deliver to CO after testing is completed. Label cores and protect from damage due to handling or alteration due to temperature during storage or transfer.

03M09/13/05

Section 403.— HOT ASPHALT CONCRETE PAVEMENT

Construction Requirements

403.16 Pavement smoothness. Delete this Subsection and substitute the following:

403.16 Pavement Smoothness/Roughness. Measure the smoothness/roughness of the final paved surface course after final rolling, within 14 days of completing roadway paving, before placing a surface treatment, and according to the designated type below. In addition, construct all pavement surfaces to meet the requirements of (b) below.

(a) International roughness index (IRI). For type III pavement roughness, furnish an inertial profiler conforming to AASHTO PP 50 and validated according to AASHTO PP 51. At least 21 days before use, submit results showing the inertial profiler conforms to AASHTO PP 51. Furnish personnel to operate the inertial profiler according to AASHTO PP 52. The CO will direct and observe its operation. Measure in the middle portion of each lane. Submit raw data files (*.ERD) that are compatible with FHWA Profile Viewer software on a compact disk to the CO.

Areas of localized roughness will be identified using a 7.62-meter moving average filter. The difference between the 7.62-meter moving average and the reported relative elevation for every profile point will be determined. Deviations greater than 3.81 millimeters are areas of localized roughness.

An IRI value will be determined for each for each 0.1-lane kilometer of traveled way. Cattle guards and bridges not being overlayed will be excluded from the calculation of IRI and determination of localized roughness. Measure excluded areas according to (b) below.

(1) Type III pavement roughness (IRI measurements for reconstructed and new roads). Measure the roughness of the final paved surface course. Defective areas are 0.1-kilometer segments with IRI values greater than 1.499 meters per kilometer or areas of localized roughness.

The pay adjustment factor for each 0.1-kilometer segment will be determined from Table 401-3.

Table 401-3
Type III Pavement Roughness

IRI (m/km)	Pay Adjustment Factor (PAF)
Less than 0.473	PAF = 7.00
0.473 to 0.946	PAF = 13.99 – 14.770 (IRI)
0.947 to 1.026	PAF = 0.00
1.027 to 1.499	PAF = 45.55 – 44.398 (IRI)
Greater than 1.499	Rejected (1)

(1) Pay adjustment factor when corrections are not allowed equals minus 21.00.

(b) Type V pavement smoothness/roughness (straightedge measurement). Use a 3-meter metal straight edge to measure at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 6 millimeters in 3 meters between any two contacts of the straightedge with the surface.

(c) Defective area correction. Correct defective areas from (a) and (b) above.. Obtain approval for the proposed method of correction. If no corrections are allowed, no adjustment will be made to the pay adjustment factors.

Re-measure corrected areas according to the specified type of pavement smoothness/roughness. The smoothness/roughness value obtained will replace the original.

Delete Table 403-1 and substitute the following:

Table 403-1
Sampling, Testing and Acceptance Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Hot asphalt concrete pavement	Measured and tested for conformance (106.04)	Job-mix formula verification	—	Subsection 403.03	1 per aggregate stockpile	Flowing aggregate stream (bin or belt discharge) or off of conveyor	—	21 days before approval of job-mix formula
		Gradation	—	AASHTO T 30	1 per 700 t	Behind paver before compacting	Yes, when requested	24 hours
		Asphalt content	—	AASHTO T 308 & T 329	"	"	"	"
		Compaction	—	ASTM D 2950 or other approved procedures	"	Completed roadway after rolling	"	"
		Smoothness	—	Subsection 403.16	—	—	—	—
Asphalt binder		Quality	—	Subsection 702.01	1 per 130 t of liquid	Line between storage tank & asphalt plant	2- 1-liter samples	Tested by Government

Section 408. — COLD RECYCLED ASPHALT BASE COURSE

408.08 Acceptance. Delete the text under this Subsection and substitute the following:

Recycling agent and lime will be evaluated under Subsections 106.02 and 106.03

Emulsified asphalt will be evaluated under Subsections 106.2 and 106.03

Aggregate (new) will be evaluated under Subsections 106.02 and 106.03.

Construction of the cold recycled asphalt base course will be evaluated under Subsections 106.02. Cold recycled asphalt base density will be evaluated under Subsections 106.02.

Measurement

408.09 Delete the text under this Subsection and substitute the following:

Do not measure Cold Recycled Asphalt Base Course for direct payment.

03M01/01/04

Section 412.— ASPHALT TACK COAT

Construction Requirements

412.07 Acceptance. Delete the text of the first paragraph and substitute the following:

Emulsified asphalt will be evaluated under Subsections 106.02, 106.03, and 702.09.

03M01/02/08

Section 552.— STRUCTURAL CONCRETE

Construction Requirements

Delete Table 552-2 and substitute the following:

Table 552-2
Minimum Air Content for Air Entrained Concrete

Nominal Maximum Aggregate Size[1]	As Delivered Minimum Air Content [2] [3] (%)
63 mm	3.5
50 mm	3.5
37.5 mm	4.0
25 mm	4.5
19 mm	4.5
12.5 mm	5.5

(1) Meet the processing requirements of AASHTO M 43, Table 1 – Standard Sizes of Processed Aggregate.
(2) These air contents apply to the total mix. When testing these concretes, aggregates larger than 37.5 millimeters is removed by handpicking or sieving, and air content is determined on the minus 37.5-millimeter fraction of the mix. Air content of the total mix is computed from the value determined on the minus 37.5-millimeter fraction.
(3) For P(AE) concrete, reduce the as delivered minimum air content by 1.0 % and use a maximum air content of 6.0 %

(v) Delete Table 552-3 and substitute the following:

Table 552-3
Required Average Compressive Strength When Data Are Not Available to Establish a Standard Deviation

Specified Compressive Strength (f'_c) (MPa)	Required Average Compressive Strength (f'_{cr}) (MPa)
Less than 21	$f'_c + 7.0$
21 to 35	$f'_c + 8.5$
Over 35	$1.10f'_c + 5.0$

552.08 Delivery. (a) Truck mixer/agitator. Add the following:

Do not exceed 130 total revolutions at mixing speed, including both initial mixing and remixing. Do not exceed 300 total revolutions, including both mixing and agitating speed.

552.09 Quality Control of Mix. (b) Delivery and sampling. Delete paragraph **(4)** and substitute the following:

(4) Take samples according to AASHTO T 141 from specified loads. Composite samples are not required. Provide cylinder molds. Make at least 4 cylinders for compressive strength tests. Label each concrete cylinder mold with the project name, project number, the cylinder number, date molded, and location of the sample. Mark one cylinder "7 day test", one cylinder "14 day test", and two cylinders "28 day test". Labeling on the lid only is not allowed. Use a permanent ink or paint marker to ensure that the label remains legible throughout the curing period.

After initial curing, furnish and maintain a suitable environment to cure cylinders according to WFLHD T 23-94. Provide suitable containers to protect and continue the curing of cylinders while transporting. Deliver cylinders to the Vancouver Laboratory according to Subsection 154.02. Cylinders will be tested at 7, 14, and 28 days from the date molded. Ensure cylinders arrive at the Vancouver Laboratory at least 1 day before the designated test date.

552.12 Construction Joints. Delete the third paragraph and substitute the following:

When the joint is between two fresh concrete placements, rough float the first placement to thoroughly consolidate the surface and leave the surface in a roughened condition. Clean the joint surface of laitance, curing compound, and other foreign material. Use an abrasive blast or other approved method to expose the aggregate on the joint surface. Re-tighten forms where the joint overlaps the first placement. Immediately before placing new concrete, flush the joint surface with water and allow to dry to a surface dry condition.

552.16 Finishing Formed Concrete Surfaces. Add the following:

(h) Class 8 - Refinishing. Clean and refinish according to the appropriate class any concrete surfaces which are exposed to view (e.g., piers, columns, web walls, etc.) and have become streaked and unsightly due to spilled mortar, leaching, or some other cause.

Delete Table 552-9 and substitute the following:

Table 552-9
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality (703.02)	Measured and tested for conformance (106.04 & 105)	Quality	—	AASHTO M 80	1 per material type	Source of material	Yes	Before producing
Concrete composition (mix design)	Measured and tested for conformance (106.04 & 105)	All	—	Subsection 552.03	1 per mix design	Source of material	Yes	Before producing
Produced aggregate (fine & coarse)	Measured and tested for conformance (106.04)	Gradation	—	AASHTO T 27 & T 11	1 per day	Flowing aggregate stream (bin, belt, discharge conveyor belt, or stockpile)	Yes, when requested	Before batching
		Fineness modulus	—	AASHTO T 27	—	"	"	"
		Moisture test	—	AASHTO T 225	—	"	"	"
		Unit mass	—	AASHTO T 121	1 per load	Point of discharge	—	Upon completing tests
Structural concrete (552.09(b)(3))	Measured and tested for conformance (106.04)	Air content	—	AASHTO T 152 or AASHTO T 196	"	"	—	"
		Slump	—	AASHTO T 119	"	"	—	"
		Temperature	—	Field measured	"	"	—	"
	Statistical (106.05)	Compressive strength	II	WFLHD T 23-94[1] & AASHTO T 22	1 set per 25 m^3 but not less than 1 per day	Discharge stream at point of placing	—	—

(1) See FLH Field Materials Manual, Appendix B.

03M06/04/07

Section 554.— REINFORCING STEEL

Construction Requirements

554.08 Placing and Fastening. Delete the first paragraph and substitute the following:

Place fasten, and support the bars according to the CRSI *Manual of Standard Practice*. Use precast concrete blocks or metal supports. Attach concrete block supports to the supported bar with wire cast in the center of each block. Use class 1 (plastic protected) or class 2, type B (stainless steel protected) metal supports in contact with exposed concrete surfaces. Use stainless steel conforming to ASTM A 493, type 430.

554.09 Splices. Add the following:

Mechanical splices, where allowed, may be made using the following coupler devices:

- Bar-Lock MBT coupler
- OS Splice Clip as produced by Splice Sleeve North America;
- Bar-Grip System by AFC Dayton Barsplice;
- Quick-Wedge as produced by Erico Concrete Construction Products; or
- an approved alternative.

Approval by the CO of an alternate coupler design will be based upon technical data, including test results, and other necessary proof of satisfactory performance submitted by the manufacturer.

The criteria for acceptance of alternate coupler design is the total slip of the reinforcing bars within the splice sleeve after loading in tension to 210 kPa and relaxing to 21 kPa must not exceed 0.25 millimeters for reinforcing bars No. 43 or smaller as measured between gage points clear of the splice sleeve. Mechanical couplers used in the superstructure slab must be butt type splices only.

Use only epoxy coated mechanical couplers for joining epoxy coated reinforcing. Splice sleeves must have a clear coverage of not less than 45 millimeter measured from the surface of the concrete to the outside face of the sleeve. Do not place slab bar mechanical splices adjacent to each other.

Perform splicing procedures according to the manufacturer's standard equipment, jigs, clamps, and other required accessories. Use procedures for making mechanical butt splices as recommended by the manufacturer and approved by the CO.

03M06/04/07

Section 555.— STEEL STRUCTURES

Construction Requirements

555.03 General. Delete the text of the first sentence of the first paragraph and substitute the following:

Fabricate the structural steel in a fabricating plant that is certified in Sbr (Simple Steel Bridges), under the AISC Quality Certification Program.

555.08 Fabrication. Add the following:

After fabrication and prior to shipping the structural steel members for the Snake River Bridge, pretreat these members to provide a uniform patina. Sandblast the steel to a uniform texture and keep continuously moistened for a period of 14 days or until the steel is a uniform rust color.

Measurement

555.21 Delete the second paragraph and substitute the following:

Measure structural steel computed according to the AASHTO *Standard Specifications for Highway Bridges.* Include all metal items incidental to the structure and required by the contract such as castings, steel plates, anchor bolts and nuts, pins and nuts, expansion dams, roadway drains and scuppers, weld metal, bolts embedded in concrete, cradles and brackets, posts, conduits and ducts, and structural shapes.

03M01/01/04

Section 562.— TEMPORARY WORKS

Material

562.02 Delete the text of this Subsection and substitute the following:

Select material consistent with the safety and quality required by the design assuptions. Furnish factory fabricated components of vertical shoring towers complying with the *Certification Program for Bridge Temporary Works* (FHWA-RD-93-033).

Design Requirements

562.03 Design. Delete the fourth paragraph and substitute the following:

Do not use deck overhang form brackets for girder bridges that require holes to be cast or drilled into the girder webs.

562.07 Maintenance and Inspection. Delete this Subsection and substitute the following:

Inspect and maintain temporary works in an acceptable condition throughout the period of use.

In the presence of the CO, perform an in-depth inspection of temporary works not more than 24 hours before beginning each concrete placement or before allowing people to enter a cofferdam or excavation support structure. Inspect other temporary works at least once a month to ensure they are functioning properly. Use a registered professional engineer to inspect cofferdams, shoring, support of excavation structures, and support systems for load tests before loading.

Furnish written results of the inspections to the CO before placing concrete, allowing people to enter a cofferdam or excavation support structure, or loading temporary works. Include a certification that the system meets the requirements of the contract and drawings.

Clearly mark the capacity of factory fabricated components of vertical shoring towers according to *the Certification Program for Bridge Temporary Works* (FHWA-RD-93-033). Make inspections and certifications for factory fabricated components of vertical shoring towers according to the *Certification Program for Bridge Temporary Works* (FHWA-RD-93-033).

Section 566.— SHOTCRETE

Description

566.01 Delete the text of the Subsection and substitute the following:

This work consists of constructing one or more courses of shotcrete on the piers and abutments at the Snake River Bridge at Flagg Ranch. It includes removal and replacement of deteriorated concrete and patching existing spalls.

Construction Requirements

566.06 Shotcrete Construction. Amend as follows:

Add the following: Schedule a prework meeting with the CO at least 21 days prior to beginning this work. The purpose of the prework meeting is to review specific proposals for methods, equipment, and materials to be used for this work. Provide a detail description of the surface preparation method to be used. Include a description of equipment, materials, detail sequence of work and proposed dates according to Section 155. Include information on traffic control sequencing and any other information necessary to control the work.

(a) Surface preparation. Add the following:

Remove loose and deteriorated concrete on the exposed surfaces of the existing concrete piers and caps. Use hand tools and light-weight power tools to remove concrete. Remove only top 50 millimeters of concrete in the areas indicated. Use caution not to damage intact concrete or to remove concrete to a depth of more than 100 millimeters as measured from the existing surface.

Patch voids, spalls, and localized areas of concrete removal with non-shrink cement grout. Large areas of concrete removal may be filled with shotcrete according to Section 566.

Install anchors and reinforcing mesh. Provide anchors at a maximum 600 millimeter spacing horizontal and vertical. Design anchors to be sufficient to support the dead load of the shotcrete, and to resist a minimum pullout force of 8.5 kilonewton each. Provide wire mesh to equal a minimum area of 250 square millimeters per meter in each direction.

(c) Shotcrete application.

(1) Add the following:

Apply shotcrete to 600 millimeters below existing ground line. Build up shotcrete to 50 millimeters outside existing concrete surface.

(5) Add the following:

Cut shotcrete back using trowels, cutting rods, screeds or other suitable devices. Allow the shotcrete to stiffen sufficiently before cutting and trimming so as to prevent the formation of tears, cracks, and delaminations. Remove shooting wires on completion of cutting and trimming.

566.07 Curing Shotcrete. Add the following:

After shotcrete has cured, apply silane concrete sealer to the top surface and sides of piers and pier caps. Apply sealer uniformly at a minimum rate of 40 liters per square meter of surface area.

Do not apply sealer when the concrete surface or ambient air temperature is below 5°C, above 32°C, or outside the manufacturer's recommended temperature range. When the surface is wet because of inclement weather, power washing, or other moisture it shall be permitted to dry at least 24 hours before the sealer is applied

Mix, handle, apply, store and dispose of all solvents, coating, or other chemical products, or solutions in such a manner that any spill, splash, or drip shall be contained without contamination of the soil, vegetation, streams, or other water bodies.

Provide two approved respirators in good working condition for use by Government personnel.

Measurement

566.10 Delete the last sentence and substitute the following:

Measure shotcrete by the square meter.

03M12/20/05

Section 575.— MINOR BRIDGE WORK (ADDED SECTION)

Description

575.01 This work consists of re-setting pedestrian hand rail at the approaches to Snake River Bridge at Moose Junction.

Construction Requirements

575.02 General. Raise and re-set to grade the concrete support beams and pedestrian hand rails at both ends of the bridge. Place lean concrete backfill according to Section 614 under the concrete grade beam.

575.03 Acceptance. Minor bridge work will be evaluated under Subsection 106.02.

Measurement

575.04 Measure minor bridge work by the lump sum.

Payment

575.05 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 575 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Section 601.— MINOR CONCRETE STRUCTURES

Construction Requirements

601.03 Concrete Composition. Delete Table 601-1 and substitute the following:

Table 601-1
Composition of Concrete

Property	Specification
Cement content	362 kg/m^3 minimum
Water/cement ratio	0.49 maximum
Slump	125 mm maximum
Air content	4% minimum
Size of course aggregate	AASHTO M 43 with 100% passing the 37.5 mm sieve
28-day compressive strength	21 MPa minimum

601.07 Acceptance. Delete the text of this Subsection and substitute the following:

Material for minor concrete structures will be evaluated under Subsections 106.02 and 106.03.

Excavation and backfill will be evaluated under Section 209.

Construction of minor concrete structures will be evaluated under Subsections 106.02 and 106.04.

Delete Table 601-2 Sampling and Testing Requirements.

03M03/07/05

Section 602.— CULVERTS AND DRAINS

Construction Requirements

602.03 General. Delete this Subsection and substitute the following:

The plans show the size and approximate location and length of culverts. Determine final location, skew, length, elevations, and grade according to Subsection 152.03**(g)**. Do not order culvert material until the CO has accepted the final structure size, length, and alignment.

Perform excavation and backfill work under Section 209.

Paint visible exterior surfaces of all steel pipe culverts with a prime coat according to Subsection 708.04, and a finish coat of flat black color. Provide finish coat information and sample for approval by CO before use.

Provide a temporary driving surface according to Section 404 within one day after completing culvert installation.

602.08 Acceptance. Add the following:

See Table 602-1 for sampling and testing requirements.

Table 602-1
Sampling and Testing Requirements

Section 602. — Culverts and Drains										
Type of Acceptance (Subsection)	**Material or Product**	**Characteristic**	**Category**	**Test Methods / Specifications**	**Tolerance**	**Sampling Frequency**	**Point of Sampling**	**Split Sample**	**Reporting Time**	**Remarks**
Measured and tested for conformance (Subsection 106.04)	Pipe culvert	Line & Grade	—	Field measured	±60 mm horz. and ±30 mm vert. from reference stakes	Each pipe	Installation	—	—	—

Section 604.— MANHOLES, INLETS, AND CATCH BASINS

Construction Requirements

604.08 Acceptance. Add the following

See Table 604-1 for sampling and testing requirements.

Table 604-1
Sampling and Testing Requirements

Section 604. — Manholes, Inlets, and Catch Basins										
Type of Acceptance (Subsection)	**Material or Product**	**Characteristic**	**Category**	**Test Methods / Specifications**	**Tolerance**	**Sampling Frequency**	**Point of Sampling**	**Split Sample**	**Reporting Time**	**Remarks**
Measured and tested for conformance (Subsection 106.04)	Manholes, inlets, catch basins, junction boxes, and spring boxes	Elevation and dimensions specified	—	Field measured	±60 mm horz. and ±30 mm vert. from reference stakes	Each unit installed	Installation	—	—	—

03M01/01/04

Section 605.— UNDERDRAINS, SHEET DRAINS, AND PAVEMENT EDGE DRAINS

Description

605.01 Add the following:

This work also consists of furnishing and installing collector and outlet pipes within subexcavated areas, and underdrain systems using pipe, granular backfill, and geotextile.

Material

605.02 Add the following to the materials list:

Mesh Screen	725.29

605.03 General. Add the following:

Bevel pipe outlets to match embankment slopes. If metal pipe is used, paint visible outside ends according to Subsection 602.03. Install a mesh screen at the end of outlet pipe with standard coupling bands or by other means approved by the CO.

605.04 Placing Underdrain. (a) Standard underdrain. Delete the first sentence of the fourth paragraph and substitute the following:

Place granular backfill to the height shown on the plans above the top of the collector pipe and compact.

Delete Table 605-1 and substitute the following:

Table 605-1
Sampling and Testing Requirements

Material or Product (Subsection)	Characteristic (Category)	Test method Specifications	Sampling Frequency	Point of Sampling	Split Sample	Tolerance	Reporting Time
Acceptance - Measured and Tested for Conformance (See Subsection 106.04)							
Granular backfill	Gradation	AASHTO T 27 & T 11	1 per 500 m^3	Production output or stockpile	Yes	—	4h
Pipe & drains	Line & grade	Field measure	Each installation	—	—	±60mm horz. & ±30mm vert. from reference stakes	—

Section 607.— CLEANING, RECONDITIONING, AND REPAIRING EXISTING DRAINAGE STRUCTURES

Delete this Section and substitute the following:

Description

607.01 This work consists of reconditioning the existing reinforced concrete box culvert at 33+938.4. Work includes removal of existing reinforced concrete shown on the plans, and construction of culvert extensions and wing walls.

Material

607.02 Conform to the following Sections:

Concrete	601
Reinforcing steel	554

Construction Requirements

607.03 Box Culvert Extensions. Perform excavation and backfill work under Section 209. Remove existing reinforced concrete as shown on the plans. Clean and straighten as necessary reinforcing steel that is to be incorporated in the new work. Repair or replace reinforcing steel that is damaged during removal operations. Dispose of removed concrete outside of Park and National Forest System Lands.

Construct the extensions and wing walls at the locations and dimensions shown in the plans and according to Section 601.

Soak the surfaces of the existing concrete with water until saturated. Keep the surface saturated until the mortar is placed. Immediately before placing the new concrete, thoroughly coat the existing surface with a thin coating of neat cement mortar.

607.04 Acceptance. Construction of box culvert extensions and wing walls will be accepted under Subsections 106.02 and 106.04. Material will be accepted under Subsections 106.03 and 106.04.

Measurement

607.05 Measure the Section 607 items listed in the bid schedule according to Subsection 109.02.

Payment

607.06 The accepted quantities will be paid at the contract price per unit of measurement for the Section 607 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Section 609.— CURB AND GUTTER

Construction Requirements

609.05 Concrete Curb or Curb and Gutter. Delete paragraph **(2)** and substitute the following:

(2) Expansion joints. Form expansion joints at intervals of 6 meters using a 19-millimeter thick preformed expansion joint filler. Where the curb is constructed adjacent to or on rigid pavement, match the expansion joints in the pavement.

Delete Table 609-1 and substitute the following:

Table 609-1
Sampling and Testing Requirements

Material or Product (Subsection)	Characteristic (Category)	Test method Specifications	Sampling Frequency	Point of Sampling	Split Sample	Tolerance	Reporting Time
Acceptance - Measured and Tested for Conformance (See Subsection 106.04)							
Bed course	Gradation	AASHTO T 27 & T 11	1 per 500 m^3	Production output or stockpile	Yes	—	4h
	Liquid limit	AASHTO T 89	"	"	"	"	"
	Depth & width	Field measure	As determined by the CO	Installation	—	Width: ±45mm Depth: ±15mm	—
Mortar	Making test specimens Compressive strength(1)	AASHTO T 23 & T 22	1 per installation(2)	Job site	—	—	—
Curb & gutter	Line & grade	Field measure	Each installation	—	—	1:5000 horz (not to exceed 60mm). & ±6mm vert. from reference stakes	—

(1) The compressive strength will be the average of two test specimens.

(2) Sample consists of two test specimens.

Section 611.— WATER SYSTEMS

Description

611.01 Add the following after the last paragraph:

This work also includes removing, cleaning, salvaging, and relocating water systems.

Construction Requirements

611.03 General. Add the following after the last paragraph:

Locate water system components and all other utilities according to Section 645 before starting excavation and planting operations.

Coordinate shut down and reestablishment of water services with Grand Teton National Park to minimize water service downtimes.

Obtain approval from the CO before salvaging each water system component.

The locations of water system components may be adjusted by the CO to accommodate existing field conditions.

Remove and clean existing water system components to be salvaged without damaging the individual components.

(a) Valve Box Relocations and Adjustments. Excavate around boxes to be relocated or adjusted without damaging the boxes.

(1) Relocations. Salvage existing boxes for reinstallation.

(2) Adjustments. Place and compact permeable backfill material under existing boxes until the top of each box is flush with the finish grade.

(b) Irrigation System Requirements. Complete all of the irrigation system modifications before May 31, 2008, or schedule watering of all affected planting areas until irrigation system modifications are completed and the system is activated. Schedule watering of planting areas with deactivated irrigation lines on a daily basis, in the amount of water supplied by the existing irrigation system settings. The plans identify the existing irrigation system components to be modified. The components include; pipes, fittings, couplings, valves, valve boxes, sprinkler heads, and all appurtenances.

(1) Pre-Modifications. Perform the following before starting modification operations:

(a) Determine the water pressure in the existing, active irrigation system; and report the measured pressure to the CO; and,

(b) Determine the size and type of all existing pipes, fittings, couplings, sprinkler heads, and appurtenances that will be affected by the contracted work.

(2) Modifications. Perform the following:

(a) Existing pipes. Pipes from the existing irrigation system to be modified may be salvaged.

(b) Salvaging. Salvage all existing irrigation system components to be modified, less the pipes.

(c) Furnishing Additional Components. Provide additional components needed to complete irrigation system modifications that are in-kind or equivalent. Provide material certifications to the CO before incorporating materials into the work.

(d) Installations. Reinstall salvaged components, or install new components, according to the manufacturer's requirements. Test all joints in the irrigation system according to Subsection 611.05. Fill excavations according to Subsection 611.06. Installation of metal locator strips is optional.

611.06 Backfilling. Add the following after the last paragraph:

Do not backfill over water system components until authorized by the CO to proceed. Perform backfill operations without damaging irrigation system components.

Section 614.— LEAN CONCRETE BACKFILL

Construction Requirements

614.03 Composition of Mix. Add the following:

The following mix proportions per cubic meter may be used in lieu of a job specific mix design:

Cement	30 kg
Fly ash	150 kg
Coarse aggregate	1125 kg
Fine aggregate	860 kg
Water	150 kg

Section 615.— SIDEWALKS, DRIVE PADS, AND PAVED MEDIANS

Construction Requirements

615.04 Portland Cement Concrete Sidewalks, Drive Pads, and Medians. Amend as follows:

(a) Joints. (1) Expansion joints. Delete the text of this paragraph and substitute the following:

Construct at intervals not exceeding 6 meters. Use 19-millimeter thick preformed expansion joint filler for the full depth of the joints. When joints are to be sealed, use joint sealant conforming to Subsection 712.01**(a)(6).**

(3) Construction joints. Add the following:

When joints are to be sealed, use joint sealant conforming to Subsection 712.01**(a)(6)**.

Delete Table 615-1 and substitute the following:

Table 615-1
Sampling and Testing Requirements

Material or Product (Subsection)	Characteristic (Category)	Test method Specifications	Sampling Frequency	Point of Sampling	Split Sample	Tolerance	Reporting Time
Acceptance - Measured and Tested for Conformance (See Subsection 106.04)							
Bed course	Gradation	AASHTO T 27 & T 11	1 per 500 m^3	Production output or stockpile	Yes	—	4h
Granular backfill	Gradation	AASHTO T 27 & T 11	1 per 500 m^3	Production output or stockpile	Yes	—	4h
	Liquid limit	AASHTO T 89	"	"	"	"	"
Sidewalks, drive pads, & paved medians	Line & grade	Field measure	Each installation	—	—	1:5000 horz (not to exceed 60mm). & ±6mm vert. from reference stakes	—

Section 619.— FENCES, GATES AND CATTLE GUARDS

Material

619.02 Add the following to the material list:

Minor concrete	601
Structural steel	717.01
Bollard Post	716.03

Construction Requirements

619.03 Fences and Gates. Delete the first sentence of **(c)(5)***(b) Metal gates* and substitute the following:

> After fabrication and before shipping, remove all mill scale from the finished assembly by blast cleaning the steel to SSPC standard SSPC-SP 6, commercial blast clean.

619.08 Bollards. Add the following:

Set steel pipe as bollards in concrete as shown in the details on the plans. Fill the pipe with concrete and mound at the top of the pipe. Set temporary guys or bracing as necessary to support the bollards in place until the concrete has firmly set. Treat trimmed area of post according to Subsection 716.03. Pant bollards manor brown before applying object markers.

619.09 Acceptance. Add the following:

Installation of gates and bollards will be evaluated under Subsections 106.02 and 106.04.

Section 620.— STONE MASONRY

Description

620.01 Add the following:

This work also consists of removing and resetting stone masonry headwalls.

Construction Requirements

620.03 General. Add the following:

Remove stone masonry headwalls from pipe culverts before removing culvert. Reset the salvaged stone as a stone masonry headwall following installation of the drainage structure.

Disassemble and salvage stones from stone masonry structures. Remove mortar and clean stones.

Stockpile stones salvaged from stone masonry headwalls at sites adjacent to the roadway within the clearing limits, and away from construction activities. Use the salvaged stone in the construction of new stone masonry structures. Take precautions to prevent damage to capstones and other stones when disassembling.

Perform disassembly and construction of stone masonry structures by a stonemason experienced in this type of work.

Salvage unused and broken stones according to Subsection 203.03.

Do not use coloring agent in the mortar mixture.

620.04 Placing Stone. Delete the first paragraph and substitute the following:

Reset stones for headwalls salvaged under Section 620, and cut and set dimension stones, as required, producing stone masonry structures similar to the disassembled structure and according to the plans. Reset conserved capstones as capstones.

Do not lay masonry when the ambient temperature is below 0 ºC. Maintain completed masonry at a temperature above 4 ºC for 24 hours after construction. Clean all stones thoroughly and moisten immediately before placing. Clean and moisten the bed. Use hand tools to clean the exposed faces of the stones of all mortar before resetting.

03M01/01/04

Section 622.— RENTAL EQUIPMENT

Description

622.01 Delete the text of this Subsection and substitute the following:

This work consists of furnishing and operating equipment for the construction work as ordered by the CO and listed below. Work under this Section does not include equipment time used to perform work provided for under any other pay item shown in the bid schedule. The work anticipated under this Section includes:

(a) Moving existing stockpiles of aggregate and reclamation of Spread Creek Pit, if the contractor elects to use the material source for the production of aggregates. Adhere to restrictions in Subsection 105.02**(a)(2)** paragraphs **(a)** through **(d)**.

(b) Shaping of final grade adjacent to Special Rock Embankment at Snake River Bridge shown on the Drawings. Adjustment to accommodate stream gaging equipment at Snake River Bridge. Dispose all items, designated for removal and disposal by the CO, outside of Park and National Forest System Lands.

(c) Removal and reinstallation of silt fence for winter shutdown, according to Section 157.

(d) Maintenance of Spread Creek Access Road according to Subsection 156.04.

(e) Final shaping of waste material at the Snake River Pit Disposal Area including Pond 1, Upper Staging Area, and Pond 5.

(f) Removing and relocating plants, shrubs and trees located at the Grand Teton Park Pathways, Visitor Center connection shown on the plans.

(g) Road obliteration on North Park Road, Phase II, as shown on the plans.

Construction Requirements

622.02 Rental Equipment. Delete the text of the first paragraph and substitute the following:

Furnish and operate the following equipment:

Number of Units	Type of Equipment
1	Dump truck, 10 cubic meter minimum capacity.
1	Backhoe loader, 240 liter minimum rated capacity
1	Wheel loader, 3 cubic meter minimum rated capacity
1	Bulldozer, universal blade, 225 kW minimum
1	Motor grader, 3.6 meter minimum blade
1	Hydraulic excavator, 0.06 cubic meters minimum capacity
1	Hydraulic excavator, 1.1 cubic meters minimum capacity with thumb attachment.
1	Loader, wheel, skid steer, 30kW minimum

Submit the model number and serial number for each piece of equipment before use. Make equipment available for inspection and approval before use.

Clean equipment according to Subsection 107.11.

03M01/01/04

Section 623.— GENERAL LABOR

Description

623.01 Delete the text of this Subsection and substitute the following:

This work consists of furnishing workers and hand tools for the work listed in Subsection 622.01.

Section 624.— TOPSOIL

Construction Requirements

624.03 Preparing Areas. Delete the text of this Subsection and substitute the following:

Shape all slopes and disturbed areas to be covered with topsoil. Disk or scarify the compacted soil layer to a depth of 150 millimeters in a direction perpendicular to the natural flow of water. Leave the soil surface roughened such that obvious furrows are eliminated and a clear break between topsoil and subgrade layers is not produced.

624.04 Placing Topsoil. Amend as follows:

Add the following to the first paragraph:

See Subsection 204.05 for stockpiling restrictions.

Delete the third sentence of the second paragraph and add the following:

Remove and dispose of all stumps, roots, and branches larger than 50 millimeters and rocks larger than 100 millimeters upon completion of spreading according to Subsection 203.05. Remove stones under 100 millimeters that are not firmly embedded and those that protrude more than 100 millimeters.

Place topsoil onto ledges, pockets and depression on rock slopes by mechanical or hand labor means. Spread topsoil on visible cut slopes and upper 2/3 of embankment or further if possible. Once topsoil has been placed on slopes, do not drive any equipment over it.

Delete the third paragraph.

03M01/01/04

Section 625.— TURF ESTABLISHMENT

Construction Requirements

625.03 Turf Establishment Seasons. Delete the text of this Subsection and substitute the following:

Apply seed and mulch only between September 15 and October 1, unless approved by the CO. Do not seed during windy weather or when the ground is excessively wet, frozen, or otherwise un-tillable. Apply temporary seed on the topsoil stockpiles at the Spread Creek Pit that will remain over the winter shutdown period.

625.05 Watering. Delete the text of this Subsection.

625.06 Fertilizing. Delete the text of this Subsection and substitute the following:

Do not apply fertilizer.

625.07 Seeding. Add the following to paragraph **(b)** Hydraulic method:

Only apply Government provided seed to the following areas:

- Seed Area A: includes North Park Road, Phase II (except areas designated in Area B), North Park Road, Moran Curve Widening and Entrance Station Repair, and North Park Road Snake River Bridge,(Option B)
- Seed Area B: includes North Park Road, Phase II, designated wetland areas only. Designated wetlands are identified on the plans;
- Seed Area C: Spread Creek Pit.

Obtain Government provided seed from the Moose Warehouse, Moose, WY. Notify the CO 14 days before obtaining seed. Seed containers will be marked to corresponding seed area. Apply the seed mixture at the rate of 29 kilograms of PLS (pure live seed) per hectare. The actual seed rate will vary due to seed size, purity and viability. The specific seeding rate and PLS information will be available when the Government furnished seed is provided. Include a tracer material consisting of either wood fiber mulch or grass cellulose fiber mulch to provide visible evidence of uniform application. Provide different color tracer material for Seed Areas A & B. Add the tracer to the slurry at a rate of 450 kilograms per hectare. Seed areas inaccessible to hydro-type equipment by hand.

The use of seeding, drilling method is an acceptable alternative to seeding, hydraulic method, on slopes 1:3 and flatter. If drilling method is used, application of mulch is not required. Drill seeding will be conducted using a no-till/rangeland drill with seed depth not to exceed 6.35 to 12.50 millimeters. The seeding rate will be different for drill seeding than for hydro-seeding. If drill seeding is to be used the rate will be specified when the Government furnished seed is provided.

625.08 Mulching. Amend as follows:

Delete the first paragraph and substitute the following:

(a) Dry method. Apply mulch conforming to Subsection 713.05(a) to a loose depth of 25 to 38 millimeters. Place mulch to all slopes that have placed topsoil and have been seeded. Notify the CO seven days before placing mulch.

Apply mulch using the dry method within Seeding Area B only.

Delete the third and fourth paragraph and substitute the following:

(b) Hydraulic method. Apply mulch conforming to Subsection 713.05 **(b)** at the rate of 1,700 kilograms per hectare upon completion of placing of topsoil and seeding. This rate does not include mulch used as a tracing agent under Subsection 625.07 **(b)**.

Apply mulch using the hydraulic method within Seeding Areas A and C only if hydroseeding been applied.

625.09 Protecting and Caring for Seed Areas. Delete the text of this Subsection and substitute the following:

Protect and care for seeded area until final acceptance.

Measurement

625.11 Add the following:

Do not measure mulch applied under Subsection 625.07, Seeding, **(b) Hydraulic Method**, as a tracer.

03M01/01/04

Section 633.— PERMANENT TRAFFIC CONTROL

Description

633.01 Amend as follows:

Add the following:

This work also includes providing and installing snowpole holders.

Delete the fourth paragraph and substitute the following:

Posts are designated as wood.

Material

633.02 Add the following to the material list:

Paint for timber structures (sign post)	708.02
Steel pipe (Snowpole holders)	717.06

Construction Requirements

633.03 General. Add the following:

The Park Service will furnish all signs under Item 63301 for installation. Submit to the CO a 14-day notice requesting availability of government furnished materials. Materials will be made available to the contractor at Moose Headquarters, Moose WY. Type I signs will be warped in protective sheeting and Type II signs will be boxed in shipping containers for protection. Transport materials to the work site. Protect all government furnished materials from damage until time of acceptance. Repair or replace damaged sign panels or assemblies, caused by the Contractor's handling or operations, at no expense to the Government.

633.04 Supports. Add the following:

Fabricate sign posts from wood.

Carefully trim all field cuts or abrasions made in supports after treatment. Dip, soak, spray, or apply three brush coats of a copper naphthenate solution prepared in accordance with AWPA M4 to field cut areas. Apply only to areas that will not be painted. Apply the preservative in such a manner that it does not drip or spill in to the aquatic environment or onto the soil.

Paint sign posts with two coats of “Manor Brown” as manufactured by Benjamin Moore or approved equal.

633.05 Panels. Amend as follows:

Delete the text of the first paragraph and substitute the following:

Add the following before the first paragraph:

Provide panels for sign installations conforming to the size and dimensions shown on the plans. Fabricate panels and mile post markers from aluminum.

Clean the surface to be painted to remove all oil, grease, dirt, salts, and other contaminants with an acetic acid solution. Paint the backside of all sign panels and object markers with two coats of "Manor Brown" as manufactured by Benjamin Moore or an approved equal.

Use Type II, III, or IV retroreflective sheeting for all signs including object markers. Use Type I retroreflective sheeting for all signs meant for traffic on Grand Teton Park Pathways. Cut panels to size and shape and drill or punch all holes. Make panels flat and free of buckles, warp, dents, cockles, burrs, and other defects.

Section 634.— PERMANENT PAVEMENT MARKINGS

Construction Requirements

634.03 General. Add the following:

Remove all conflicting pavement markings according to Subsection 635.13.

634.05 Waterborne Traffic Paint (Type B and C). Delete the fourth paragraph and add the following:

Apply one coat only of all white pavement markings, including: arrow symbol, handicap symbol, stop line, and crosswalk pavement markings. Apply white pavement markings at 2.6 square meters per liter.

Apply two coats of all yellow pavement markings, reversing the direction of operation of the striping machine for the second application. When permanent pavement markings are used to mark the new pavement placed during each day's paving operation, place the centerline markings as follows:

(a) Apply the first application of centerline permanent pavement markings each day to any section of road where both lanes of asphalt concrete pavement have been placed. [NOTE: If it is not possible to install centerline permanent pavement markings, install interim markings according Section 635 and MUTCD Part VI.]

(b) Apply the final application upon completion of the asphalt concrete pavement.

Apply each coat for yellow pavement markings at 5.2 square meters per liter.

03M06/22/07

Section 635.— TEMPORARY TRAFFIC CONTROL

Description

635.01 Add the following:

This work also includes providing the services of a Traffic and Safety Supervisor.

Material

635.02 Add the following to the material list:

Untreated structural timber and lumber (wood posts)	716.01

Construction Requirements

635.03 General. Add the following:

(j) Remove sign panels or cover sign panels during winter shutdown or when applicable work is not being performed. Provide sign covers that will sustain winter conditions.

635.08A Traffic and Safety Supervisor. (Added Subsection.)

Perform services described in Subsection 156.08. Provide all vehicles and incidentals necessary to perform the work.

635.13 Temporary Pavement Markings and Delineation Amend as follows:

Delete the first paragraph and substitute the following:

Before opening a pavement surface to traffic, provide temporary pavement markings or delineation according to Section 156, the MUTCD, and project plans. Apply temporary pavement markings (centerline) to the same dimensions and cycle lengths as shown in the plans for permanent pavement markings, including all passing zones. Temporary pavement markings may be allowed to remain in place for more than 14 days when approved by the CO.

Delete the text of paragraph **(a)** and substitute the following:

(a) Preformed retroreflective tape. Apply according to the manufacturer's instructions. Remove all loose temporary preformed retroreflective tape before placing additional pavement layers.

Install retroreflective to the dimensions shown in the plans for permanent pavement markings, including all passing zones. Tape may not be placed at reduced cycle lengths.

635.13A Temporary Signs and Vehicle Positioning Guides. (Added Subsection.)

Temporary signs and vehicle positioning guides may be substituted for temporary pavement markings for up to 3 calendar days. Install "NO CENTER STRIPE" (W8-12), "NO PASSING ZONE" (W14-3), "DO NOT PASS" (R4-1) and "PASS WITH CARE" (R4-2) signs according to the MUTCD. Include the description and location of each sign in an alternate traffic control proposal according to Subsection 156.03. Install vehicle positioning guides (temporary raised pavement markers) spaced 12 meters apart for temporary centerline delineation.

635.21 Temporary Fence. Add the following:

Install temporary plastic fence to protect designated wetland and sensitive areas at locations shown on the plans. The location of the fencing will be approved by the CO before installation.

Measurement

635.26 Amend as follows:

Add the following to the fifth paragraph:

Signs used to delineate passing zones under interim conditions listed in Subsection 635.13A will not be measured.

Delete the sixth paragraph and substitute the following:

Measure flaggers, for each hour a person is actually flagging. Round portions of an hour up to the half hour. Measure time in excess of 40 hours per week at the same rate as the first 40 hours.

Delete the text of the eleventh paragraph and substitute the following:

Measure temporary raised pavement markers by the each. Measure only one time for each lift of pavement even if replaced.

Temporary raised pavement markers used in lieu of paint as temporary pavement markings will be measured as equivalent temporary pavement markings. Temporary raised pavement markers used as vehicle positioning guides under interim conditions listed in Subsection 635.13A will not be measured.

Add the following:

Do not measure flagging performed by the Traffic and Safety Supervisor when there is a pay item in the bid schedule for Traffic and Safety Supervisor.

Measure Traffic and Safety Supervisor by the day (24-hour day beginning and ending at midnight) for the work described in Subsection 156.08.

A day will be measured when:

- Construction operations require a Traffic Supervisor during the normal working days;
- The Traffic Control Supervisor makes normal checks during nonwork hours; or
- The Traffic Control Supervisor is called out during nonwork hours.

Payment

635.27. Add the following:

Progress payment for moving temporary concrete barrier, will be made upon completion of each move or relocation.

Progress payment for temporary pavement markings will be made upon installation, except that when the pay item includes subsequent removal of the markings, up to 25 percent of the unit bid price may be withheld until the removal is completed.

The accepted quantities will be paid at the contract price per unit of measurement for the following Section 635 pay items in the Traffic Control task order bid schedule; Traffic Safety Supervisor, pilot car and flaggers.

Section 636.— SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS

Description

636.01 Delete the text of this Subsection and substitute the following:

This work consists of removing, cleaning, salvaging, relocating, modifying, or installing components for traffic signal, traffic detection, flashing beacon, highway lighting, sign illumination, telecommunication, electrical, and future systems.

Materials

636.02 Add the following:

Telecommunication material	725.30
Traffic Detector System	725.33

Construction Requirements

636.03 Regulations and Codes. Delete the text of the third and fourth paragraphs and substitute the following:

Furnish luminaries with crashworthy supports whenever new luminaries and poles are required.

Notify the COand the applicable utility owners listed in Subsection 107.02, to coordinate connections or disconnections to an existing utility or system, before any operational shutdown.

636.04 General. Delete the third, fourth, and fifth paragraphs and substitute the following:

Coordinate all utility facility locates, removals, installations, modifications, relocations, shut downs, and activations with the applicable utility owners listed in Subsection 107.02.

Locate utility facilities according to the applicable requirements of Subsection 107.02 and Section 645 before starting excavation and removal operations. The CO, contractor, and applicable utility owners will establish the exact location of each system component.

Treat all subsurface utility facilities within the project excavation limits, that are deactivated and abandoned-in-place, as structures and obstructions. Remove structures and obstructions according to Section 203.

Excavate and backfill according to the applicable requirements of the Plans, this Section, and Section 209. Obtain certifications from the utility owners for the constructed utility trenches. Do not backfill trenches until directed by the CO to proceed. Install detectable warning tape above Park Utilities according to the Plans.

Maintain the operation of an existing system until final connections are needed to activate that existing system.

Construct concrete according to Section 601.

Maintain as as-built working drawings of utility work according to Subsection 104.03 (c).

636.05 Conduit. Delete the text of this Subsection and substitute the following:

(a)General. Install conduit and conduit systems according to this Section, the Plans, and the applicable requirements of the conduit and cable manufacturers. Provide a metal expansion and deflection fitting where conduit crosses a structural expansion joint.

Install conduit continuous between outlets, minimizing the amount of fittings and couplings to facilitate pulling cables, innerducts, and conductors. Terminate conduit with bell fittings, bushings, caps, or plugs. Furnish and install pull wires within conduits designated for future cable installation.

Remove and replace crushed, deformed, or damaged conduit. Maintain conduits clean and dry, and protect conduit ends with plugs, caps, or fittings.

Size each pull box to provide for conduit termination and conductor connections.

(b) System along the Snake River Bridge at Moose. Furnish and install a scaffolding system, or provide under bridge access equipment that will simultaneously permit installation of the conduit system and inspections.

Provide 125 millimeter diameter, aluminum or fiberglass communication conduit.

Furnish factory-made fittings or construct bends in the field to meet contract requirements. When applicable, construct bends in the field according to the conduit manufacturer's requirements.

(c) Grand Teton National Park Systems.

(1) Fiber Optic Conduit. Use 50 millimeter HDPE conduits, and join conduits by heat fusion, electrofusion, or mechanical fittings.

(2) Future Electric and Communications. Use 50 millimeter diameter, PVC Schedule 80 conduit and fittings. Remove burrs from conduit end cuts before joining conduit with fittings. Join conduits with fittings and solvent cement.

636.10 Relocations. Delete the text of this Subsection and substitute the following:

Remove, and clean existing system components to be salvaged without damaging the individual components. Salvage and reuse existing system components to be relocated. Obtain approval from the CO before salvaging each system components for reuse.

When additional materials are required to complete system modifications or relocations, furnish and install material equivalent to existing material, unless present codes require different or improved material. Provide material certifications to the CO before incorporating materials into the work.

636.11 Acceptance. Delete the text of the first and second paragraphs and substitute the following:

Material for signal systems, lighting systems, telecommunication systems, electrical systems, and future systems will be evaluated under Subsections 106.02 and 106.03.

Installation of sign signal systems, lighting systems, telecommunication systems, electrical systems, and future systems will be evaluated under Subsections 106.02 and 106.04.

Section 645.— LOCATING UTILITIES (ADDED SECTION)

Description

645.01 This work consists of coordinating, identifying, and field-marking the location of utility facilities owned by Grand Teton National Park.

Materials

645.02 Conform to the following Subsections:

Waterborne Traffic Paint	718.14
Locating devices	725.30

Construction Requirements

645.03 General. Coordinate the location of utility facilities with the contact(s) listed in Subsection 107.02.

Locate utility facilities using workers that are certified to perform the work. Locate utility facilities within, and in close-proximity to, the project limits that may conflict with the contracted work. Locate utilities by mechanical or electrical toning and probing, ground-penetrating radar, or other methods approved by the CO.

Field-mark located utility facilities with traffic paint, flags, or other methods approved by the CO.

Maintain the field-marked locations of utility facilities within an area until all utility work and conflicting work within that area has been completed.

Submit material and worker certifications to the CO for approval.

645.04 Acceptance. Utility locating work will be evaluated under Subsections 106.02 and 106.03.

Measurement

645.05 Measure the 645 items listed in the bid schedule according to Subsection 109.02.

Payment

645.06 The accepted quantities will be paid at the contract price per unit of measurement for the Section 645 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Section 646.— ROADSIDE DEVELOPMENT (ADDED SECTION)

Description

646.01 This work consists of installing benches, railings, and bicycle storage rack

Material

646.02 Conform to the following Sections and Subsections:

Minor Concrete Structures	601
Paint	708.04
Reinforcing Steel	709.01
Primers	708.04
Treated structural timber and lumber	716.03
Untreated structural timber and lumber	716.01
Structural Steel	717.01
Galvanized pipe	717.07
Grout	725.22(c)

Construction Requirements

646.03 Bench. When appropriate, excavate and backfill according to Section 209. Provide untreated structural lumber. Provide a surface free of splinters, snags, and sharp edges with a smooth finish as approved by the CO. Primer and paint steel supports and plates before final assembly.

646.04 Bicycle Storage Rack. When appropriate, excavate and backfill according to Section 209. Provide galvanized steel hoop rack shown on the plans. If commercially available product is used, install according to manufacture's installation recommendations. Submit for approval by the CO manufacturer's literature, drawings, or other documents detailing installation.

646.05 Pedestrian Railings. Furnish untreated rails and treated posts. Drill pilot holes and set posts plumb. Backfill with suitable material. Attach rail elements to align with the grade of the pathway as shown on the plans. Ensure the handrail surface is free of splinters, snags, and sharp edges with a smooth finish as approved by the CO.

646.06 Acceptance. Excavation and backfill will be evaluated under Section 209.

Bed course material will be evaluated under Subsections 106.02 and 106.04.

Concrete will be evaluated under Section 601.

Measurement

646.07 Measure the Section 646 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Payment

646.08 The accepted quantities will be paid at the contract price per unit of measurement for the Section 646 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for lump sum items will be prorated based on the total work completed.

Section 647.— ENVIRONMENTAL MITIGATION (ADDED SECTION)

Description

647.01 This work consists of placing conserved logs on finished slopes.

Material

647.02 Conform to the following Subsections:

Untreated structural timber and lumber	716.01

Construction Requirements

647.03 Placing. Notify the CO 5 days before completing work as prescribed in Section 624 to allow staking of landscape log locations. Place logs in a random fashion, to match surrounding undisturbed area, at approved locations. Lay logs flush with ground line. Cover saw cut ends with surrounding soil. Place logs on all finished slopes prior to winter shutdown.

647.04 Anchoring. On slopes steeper than 1:3, secure logs by pinning in place with embedded rocks or by trenching the logs 1/3 their diameter into the soil slope.

647.05 Acceptance. Logs for landscaping will be evaluated under Subsection 106.02.

Measurement

647.06 Measure the Section 647 items listed in the bid schedule according to Subsection 109.02.

Payment

647.07 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 647 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

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03M10/19/07

Section 701.— CEMENT

701.01 Hydraulic Cement. Amend as follows:

(a) Portland Cement. Delete the text of this paragraph and substitute the following:

Conform to AASHTO M 85, type V and the low alkali cement criteria of Table 2 – Optional Chemical Requirements.

(c) Shotcrete. Add the following:

Use one of the following:

(1) Portland cement. Conform to AASHTO M 85 and the low alkali cement criteria of Table 2 – Optional Chemical Requirements.

(2) Blended hydraulic cement. Use AASHTO M 240, type IS, IS-A, IP, or IP-A cement.

701.02 Masonry and motor Cement. Delete the entire Subsection and substitute the following:

Masonry and motor Cement be low alkali, Types I, II, or III, conforming to AASHTO M 85; or when authorized in writing by the CO, Types 1S or 1P conforming to AASHTO M 240 may be used. Conform to Subsection 701.04.

03M06/04/07

Section 703.— AGGREGATE

703.02 Coarse Aggregate for Concrete. Delete the text of this Subsection and substitute the following:

Conform to AASHTO M 80, class A including the reactive aggregate supplementary requirement, except as amended or supplemented by the following:

(a) Los Angeles abrasion, AASHTO T 96	40% max.
(b) Adherent coating, ASTM D 5711	1.0% max.
(c) Grading, AASHTO M 43	All sizes except numbers 8, 89, 9, or 10

For bridge decks or surface courses, do not use aggregates known to polish or carbonate aggregates containing less than 25 percent by mass of insoluble residue as determined by ASTM D 3042.

For lightweight coarse aggregate, conform to AASHTO M 195.

703.05 Subbase, Base, and Surface Course Aggregate. Amend as follows:

Delete paragraph **(a)** and substitute the following:

(a) General. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel meeting the appropriate gradation and conforming to the following:

(1) Los Angeles abrasion, AASHTO T 96	35% max.
(2) Sodium sulfate soundness loss (5 cycles), AASHTO T 104 (coarse and fine)	12% max.
(3) Durability Index, AASHTO T 210 (coarse and fine)	35 min.
(4) Dimethyl Sulfoxide (DMSO), WFLHD Test for Accelerated Weathering of Aggregate by use of Dimethyl Sulfoxide	12% max.

Furnish a material that is free from organic matter and lumps or balls of clay. Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the 4.75-millimeter sieve, shall consist of natural or crushed sand and fine mineral particles.

Delete the text in paragraph **(b)** and substitute the following:

(b) Subbase or base aggregate. In addition to paragraph **(a)** above, conform to the following:

(1) Gradation	Table 703-2A
(2) Fractured faces, ASTM D 5821	50% min.
(3) SE/P_{75} Index (SEP)	1.000 min.

Delete Table 703-2 and substitute the following:

Table 703 – 2A

Target Value Ranges for Subbase and Base Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
63 mm	100 (1)				
50 mm	97 – 100 (1)	100 (1)	100 (1)		
37.5 mm		97 - 100 (1)			
25 mm	65 – 79(6)		80 – 100(6)	100 (1)	
19 mm			64 – 94(6)	80 – 100(6)	100 (1)
12.5 mm	45 – 59(7)				
9.5 mm			40 – 69(6)	51 – 82(6)	62 – 90(6)
4.75 mm	28 – 42(6)	40 – 60(8)	31 – 54(6)	36 – 64(6)	46 - 74(6)
425 µm	9 – 17(4)			12 – 26(4)	12 – 26(4)
75 µm	10 max (1)	10 max (1)	10 max (1)	10 max (1)	10 max (1)

(1) Statistical procedures do not apply.
( ) The value in the parentheses is the allowable deviations (±) from the target values.

703.07 Hot Asphalt Concrete Pavement Aggregate. Amend as follows:

Add the following:

Aggregate for hot asphalt concrete pavement consists of hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel.

Size and grade the aggregate to conform to the target values established in Table 703-4A. All the aggregate shall pass a sieve with 25 millimeter square openings as determined by AASHTO T 27 and T 11.

Delete paragraph **(a)** and substitute the following:

(a) Coarse aggregate (retained on the 4.75-millimeter sieve). Furnish hard, durable crushed stone, crushed slag, or crushed gravel that conforms to the following:

(1) Los Angeles abrasion, AASHTO T 96	35% max.
(2) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(3) Fractured faces, ASTM D 5821	90% min.
(4) Durability index (coarse), AASHTO T 210	35 min.
(5) Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method	12% max. loss

For the surface course, do not use aggregates known to polish or carbonate aggregates containing less than 25 percent by mass of insoluble residue when tested according to ASTM D 3042.

Table 703 - 4A
Aggregate Gradation
Target Values and Allowable Deviations for
Hot Asphalt Concrete Pavement

Sieve Size	Target Values	Allowable Deviation[(1)] (percent)
25 mm	100	[(2)]
19 mm	97 – 100	[(2)]
12.5 mm	85 – 90	5
9.5 mm	72 – 79	6
4.75 mm	46 –56	7
2.36 mm	28 – 34	5
425 µm	11 – 14	3
75 µm	4.5 – 6.5	2

Establish target values (TV) as part of the job-mix formula. Establish aggregate gradation target values (Percent by Mass Passing U.S. Standard Sieves - AASHTO T 27 and T 11) to the nearest 0.1 percent.

(1) Allowable deviations plus or minus from established target values.
(2) Statistical acceptance procedures not applicable.

703.17 Superpave Asphalt Concrete Pavement Aggregate. Amend as follows:

Add the following:

(h) Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method — 12% max. loss

(i) Durability index, AASHTO T 210 (coarse and fine) — 35 min.

Delete Table 703-13 and substitute the following:

Table 703-13
Allowable Deviations for Target Value Gradations

Gradation Range (percent passing)		Allowable Deviation (percent)
Minimum	**Maximum**	
70.1	89.9	4
60.1	70.0	5
55.1	60.0	6
45.1	55.0	7
40.1	45.0	6
30.1	40.0	5
21.1	30.0	4
8.1	21.0	3
0	8.0	2

703.20 Aggregate-Topsoil. (Added Subsection.)

Furnish an aggregate and topsoil blended with sufficient water for compaction. Conform to the following:

(a) Gradation — Table 703-16

(b) Silt particles (75 µm - 2 µm), AASHTO T 88 — 3% min. to 35% max.

(c) Clay particles (2 µm or less), AASHTO T 88 — 3% min. to 20% max.

(d) Organic material, AASHTO T 194 — 2% min. to 10% max.

Table 703 - 16
Aggregate-Topsoil Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27)
25 mm	100
4.75 mm	55 - 80
2 mm	40 - 75

03M10/12/07

Section 704.— SOIL

704.02 Bedding Material. Delete the text of this Subsection and substitute the following:

Furnish a uniformly graded, free draining material free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material conforming to the following:

(a) Maximum particle size	12.5 mm or half the corrugation depth, whichever is smaller
(b) Material passing 75 µm sieve, AASHTO T 27 and T 11	10% max.

704.08 Select Topping. Delete Table 704-2 and substitute the following:

Table 704 - 2A
Select Topping Gradation

Sieve Size	**Percent by Weight Passing Designated Sieve (AASHTO T 27 and T 11)**
	Grading Designation
50 mm	100
25 mm	60 - 80
4.75 mm	20 - 50
75 Φm	0 - 8

704.14 Rockery Backfill. (Added Subsection.)

Furnish sound and durable, crushed, partially crushed, or natural angular material free of muck, frozen lumps, roots, sod, or other deleterious material conforming to the gradation in Table 704-6.

Table 704-6
Gradation for Rockery Backfill

Sieve Size	**Percent by Mass Passing Designated Sieve (AASHTO T 27 and T11)**
75 mm	100
4.75 mm	0 – 30
75 µm	0 – 5

03M09/11/06

Section 705.— ROCK

705.07 Stone for Rockeries (Added Subsection.)

Furnish sound, durable rock that is native to the vicinity of the work or is similar in texture and color to the native rock and has been proven satisfactory for the intended use. Rock shall be blocky and angular, and free of organic or unsuitable material. Furnish stones with a breadth and thickness at least one-half its length. Furnish an assortment of stones graded in a well balanced range conforming to the sizes shown on the plans.

Rockery stone shall meet the material and size requirements listed above, and shall conform to the following:

(1) Durability Index, AASHTO T 210 (coarse and fine)	45 min.
(2) WHLHD Test for Accelerated Weathering of Aggregate by Use of Dimethyl Sulfoxide (DMSO)	30% max.
(3) Apparent Specific Gravity, AASHTO T 85	2.50 min.

705.08 Boulders. (Added Subsection.)

Conserve hard and durable boulders matching character and color of native rock from excavation or from source identified under Section 105. Conserve boulders a minimum size of 0.9 cubic meter with breadth nor thickness less than 2/3 its length. Sort and deliver sound, durable boulders that are resistant to weathering and water action. Do not use boulders with seams that may break into smaller pieces in the process of handling and placing. Place the boulders on selected slopes.

03M06/04/07

Section 706.— CONCRETE AND PLASTIC PIPE

706.07 Precast Reinforced Concrete Box Sections. Delete the text of this Subsection and substitute the following:

Conform to ASTM C 1433M. Meet the design requirements for HS20 loading.

706.08 Plastic pipe. Delete the text of paragraph **(d)** and substitute the following:

(d) Corrugated polyethylene drainage tubing. Furnish 75 to 250-millimeter diameter tubing conforming to AASHTO M 252, Type C or CP.

03M01/01/04

Section 708.— PAINT

708.04 Paint for Steel Structures. Delete the text of this Subsection and substitute the following:

Conform to the following:

(a) Prime coat for steel structures. Glidden All-purpose Metal Primer No. 5229, black in color, or approved equal.

03M06/04/07

Section 709.— REINFORCING STEEL AND WIRE ROPE

709.01 Reinforcing Steel. Amend as follows:

(b) Reinforcing bars. Delete the text of this paragraph and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M 31M or M 332M.

(d) Tie bars. Delete the text of this paragraph and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M 31M.

(e) Hook bolts. Delete the text of this paragraph and substitute the following:

Furnish plain, grade 420 bars conforming to AASHTO M 31M with M14 rolled threads or M16 cut threads. Furnish a threaded sleeve nut capable of sustaining a minimum axial load of 67 kilonewtons.

03M09/21/07

Section 712.— JOINT MATERIAL

712.01 Sealants, Fillers, Seals, and Sleeves. (a) Joint sealants and crack fillers. Delete the text of paragraph **(6)** and substitute the following:

(6) Flexible cellular joint filler ASTM D 1056, type 2, grade 3, 4, or 5

03M01/01/04

Section 713.— ROADSIDE IMPROVEMENT MATERIAL

713.05 Mulch. Delete this Subsection and substitute the following:

(a) Dry Method mulch. Furnish a mixture of fibrous fir bark and fibrous Western Red Cedar bark ranging in size from 3 millimeters to 150 millimeters in length. Provide a ratio of 2/3 fir bark and 1/3 cedar bark. Provide a mixture that is free of weed seed, harmful bacteria, or disease spores and substances toxic to plant growth. Provide a one kilogram sample of the mixed materials to the CO for visual inspection and approval two weeks prior to delivery of the materials to the project. The approved sample will be used as a reference for the acceptability of the materials used in the work.

(b) Hydraulic Method Mulch. Furnish 100 percent virgin wood fiber with preblended tackifier for all mulching within the project limits. Furnish plant based tackifier such as guar or alpha plantago.

03M01/01/04

Section 716.— MATERIALS FOR TIMBER STRUCTURES

716.01 Untreated Structural Timber and Lumber. Delete the first paragraph and substitute the following:

Conform to AASHTO M 168. Furnish an inspection certification from an agency accredited by the American Lumber Standards Committee for the species and grade. All wood, except as noted below, is to be Douglas Fir-Larch, No. 1 or better graded to the rules of the West Coast Lumber Inspection Bureau or the Western Wood Products Association. Mark the wood with the inspection service, grade designation, species and inspector identity.

- Pedestrian railing; Lodgepole Pine is allowed for posts and rails.

716.03 Treated Structural Timer and Lumber. Add the following:

Furnish wood according to Subsection 716.01. Incise all wood, except as noted below, and make all dimensional cuts and holes in the wood before pressure treatment. Treat the wood according to "AWPA U1: User Specification for Treated Wood" by the American Wood Protection Association. Pressure treat all timber, lumber, post, and rails for Use Category 3B, (UC3B), above ground exterior use. Treat pedestrian railing, posts, and decking with either Ammoniacal Copper Quat-Type-B (ACQ-B), Ammoniacal Copper Zinc Arsenate (ACZA) or Copper Azole Type-B (CA-B).

- Posts for pedestrian railing; incise and treat according to above the lower 800 millimeters only.

03M01/01/04

Section 717.— STRUCTURAL METAL

717.01 Structural Steel. Delete the text of this Subsection and substitute the following:

(a) Structural carbon steel. Structural carbon steel for fabrication of gates shall conform to ASTM A500. All other structural carbon steel for riveted, bolted, or welded construction shall conform to ASTM A 36. Steel for primary bridge members and fracture critical bridge members shall conform to AASHTO M 270M, Grade 245W (ASTM A 709M, Grade 245W)

(b) High-strength low-alloy structural (HSLA) steel.

(1) Primary bridge members and welded members	AASHTO M 270M, grade 345WT (ASTM A 709M, grade 345WT)
(2) Other shapes, plates, and bars	AASHTO M 270M, grade 345W (ASTM A 709M, grade 345W)

In addition, steel for primary bridge members shall meet the supplementary requirements S83 (for Zone 2) for Charpy V-notch test.

(c) Bolts and nuts. Conform to ASTM A 307.

(d) High-strength bolts, nuts, and washers. Conform to the following:

(1) Bolts	AASHTO M 164M (ASTM A 325M) Use Type 3 bolts in combination with unpainted weathering structural steel.
(2) Nuts	AASHTO M 291M (ASTM A 563M) Use Class 8S3 or 10S3 nuts in combination with unpainted weathering structural steel.
(3) Washers	AASHTO M 293M (ASTM 436M) Use Type 3 washers in combination with unpainted weathering structural steel.

03M07/16/04

Section 718.— TRAFFIC SIGNING AND MARKING MATERIAL

718.09 Object Marker and Delineator Posts. (d) Plastic posts. Add the following:

Posts are to be 2.5 meter long, red-orange snowpole delineator with yellow type II retro reflective sheeting. Place 100-millimeter wide retro reflective sheeting tape around the top of pole.

718.14 Waterborne Traffic Paint. Delete the text and substitute the following:

Furnish an acrylic water based ready-mixed paint for use on asphalt and hydraulic cement concrete pavements conforming to the following:

(a) Composition. Furnish a paint composed of resin solids of 100 percent acrylic polymer with the exact formulation determined by the manufacturer. Conform to the following:

(1) Pigment, % by mass, ASTM D 3723	45% to 55%
(2) Lead, chromium, cadmium, or barium ASTM D 3335 & D 3718	0%
(3) Volatile organic compounds, ASTM D 2369	150 g/L max.
(4) Mass of paint, ASTM D 1475	1.44 kg/L min.
(b) Viscosity. ASTM D 562	75-90 Krebs units
(c) Drying time.	
(1) Dry to no pickup, ASTM D 711	10 minutes max.
(2) Drying to no track, 0.7 kg/L type 1 waterproofed glass beads, 0.38∀0.03-mm wet film thickness at 54 EC	90 seconds max.
(d) Flexibility. ASTM D 522, using the 6.4 mm cylindrical mandrel.	No cracking or flaking
(e) Dry opacity. ASTM D 2805, contrast ratio at 7.85 m^2 /L spreading rate	0.96 min.
(f) Color.	

(1) White, ASTM D 1729	match - FHWA standard highway white
(2) Yellow, ASTM D 1729	match- FHWA standard highway yellow

(g) Daylight reflectance. (Without glass beads)

(1) White, ASTM E 1347	84% relative to magnesium oxide standard
(2) Yellow, ASTM E 1347	55% relative to magnesium oxide standard

(h) Bleeding ratio. ASTM D 969. Determine reflectance in accordance with ASTM D 1347 immediately after drying. Divide the average of 3 reflectance readings of the paint over the bleeding surface by the average of 3 readings over the non-bleeding surface to determine the bleeding ratio.	0.96 min.
(i) Scrub resistance. ASTM D 2486	300 cycles min.

(j) Freeze-thaw stability. ASTM D 2243

(1) Change in viscosity	∀5 Krebs units max.
(2) Decrease in scrub resistance	-10% max.

(k) Storage stability. During a 12 month storage period, conform to the following:

(1) No excessive setting, caking, or increase in viscosity

(2) Readily stirred to a consistency for use in the striping equipment.

03M01/01/04

Section 725.— MISCELLANEOUS MATERIAL

725.22 Grout Delete the entire Subsection and substitute the following:

Furnish grout mixtures conforming to the following for the type or types specified in the contract.

(a) Expansive hydraulic sanded cement grout. Furnish a mixture of hydraulic cement, fine aggregate, water, expansive admixture, and/or pozzolan, or additional admixtures, conforming to the following:

(1) 7-day compressive strength, AASHTO T 106	4 MPa
(2) Flow (time of efflux), ASTM C 939	16 s to 26 s

Note: A more fluid mix, having a flow cone time of efflux of 9 to 15 seconds, may be used during the initial injection.

Submit the following with the production certification:

- Current material certifications for the hydraulic cement, fine aggregate, expansive admixture, and other grout additives; and
- Independent laboratory test results for 1-day, 3-day, and 7-day strengths, flow cone times, shrinkage and expansion observed, and time of initial set.

(b) Polymer grout. Furnish a polymer binder and fine aggregate in the proportions recommended by the polymer manufacturer with a minimum compressive strength of 25 MPa in 4 hours.

(c) Non-shrink grout. Conform to ASTM C 1107.

(d) Grout for Post-Tensioned Structures. Conform to the requirements of the *PTI Guide Specification for Grouting of Post-Tensioned Structures.*

(e) Sanded Hydraulic Cement Grout for Miscellaneous Applications. Furnish 1 part hydraulic cement and 3 parts sand. Thoroughly mix with water to produce a thick, creamy consistency.

(f) Neat hydraulic cement grout. Furnish a grout consisting of a mixture of hydraulic cement, water, and admixtures. Do not exceed a water/cement ratio of 0.44. Fly ash, if used, shall not exceed 20% of the cement by weight. Admixtures to reduce water content, improve the flowability, control bleeding, or control shrinkage may be added according to the manufacturer's recommendations. An anti-washout cohesive admixture for concrete underwater placement is to be used. Admixtures shall be free of chlorides, fluorides, sulfites, and nitrates.

725.30 Mesh Screen. (Added Subsection.)

Provide galvanized 1.3 millimeter thickness hardware cloth screen with 13 square millimeter openings.

725.31 Telecommunication Material. (Added Subsection.)

Conform to the following:

(a) Conduit, Fittings, and Support Systems.

(1) HDPE Conduit and Fittings. Furnish 50 millimeter diameter, smooth-wall, coil able SDR 11 polyethylene conduit that meets the material and dimensional requirements of ASTM F 2160. Provide conduit that is pre-lubricated with factor installed pull lines for future fiber optic cable installations.

Furnish fittings and couplings that meet the applicable requirements of ASTM D 3350 and ASTM F 2160 to join polyethylene conduits.

(2) Aluminum Conduit and Fittings. Furnish 125 millimeter diameter conduit and fittings that are manufactured of 6063 alloy in temper designation T-1 according to ANSI C80.5. Furnish conduit and fittings with a clear anodized finish, or as approved by the CO.

When used, furnish factory-made fittings that meet the requirements of ASTM B 361.

(3) Fiberglass Conduit and Fittings. Furnish 125 millimeter diameter conduit and fittings. Fiberglass conduit and fittings are to be manufactured of halogen-free, fire resistant materials that meet the applicable requirements of NEMA TC-14, UL 1684, and the NEC for above ground installations.

(4) Conduit Support System. Furnish the following items to be manufactured of stainless steel or zinc-coated steel:

(a) Conduit Hangers. Furnish vertically adjustable clevis-type hangers that are sized for 125 millimeter diameter aluminum or fiberglass conduit.

(b) Threaded Rods. Furnish 9.5 millimeter diameter threaded rods that are sized to meet the spacing requirements shown on the plans.

(c) Threaded Anchors. Furnish sleeve-type, rod-hanger anchors that are able to provide a minimum allowable pull out load of 2.5 KiloNewtons when installed in concrete according to the manufacturer's requirements.

(d) Couplings, Nuts, and Washers. Furnish couplings and nuts that are appropriate for the strength of the threaded anchor, and sized for 9.5 millimeter diameter threaded rods. Furnish flat, circular washers that are sized for and sized for 9.5 millimeter diameter threaded rods.

(e) Conduit Straps. Furnish conduit straps that are sized for 125 millimeter diameter aluminum or fiberglass conduit.

(f) Concrete Anchors. Furnish sleeve-type, hex-nut anchors that are able to provide a minimum allowable shear load of 2.5 KiloNewtons when installed in concrete according to the manufacturer's requirements.

(5) Conduit Caps or Plugs. Furnish caps or plugs that may be secured and removed from conduit ends without damaging the conduit.

(b) Fiber Optic Pull Boxes and Covers. Furnish prefabricated, AASHTO H-10 rated or equivalent, boxes and covers manufactured of fire-retardant materials, and sized according to the plans.

Include the specified cable racks with the prefabricated boxes.

Furnish skid resistant covers, with a minimum 0.50 coefficient of friction when tested according to ASTM C-1028, that are secured to the box with 4 stainless steel penta-head or hex-head bolts.

Provide grounding rods for pull boxes as required by the fiber optic cable manufacturer.

725.32 Locating Devices. (Added Subsection.)

Furnish certified equipment that is calibrated according to the manufacturer's recommendations prior to performing work.

725.33 Traffic Detector Systems. (Added Subsection.)

Furnish and install piezoelectric traffic detector system for vehicle counting. System will be compatible with "MetroCount 5710" traffic counters and conform to the following;

- Operating range of -40 °C to 70 °C
- Temperature sensitivity of 0.1% °C (typ)
- Output level of 25 mV for 22 kg wheel load at 21 °C
- Passive signal cable capable of direct burial with a nominal capacitance of 89 pF/m
- Piezoelectric coefficient of 34 pC/N, nominal
- Use epoxy or acrylic grout approved by manufacturer for operating range of -40 °C to 70 °C
- Final elevation variance to pavement surface of ± 6 mm

Measure approved sites before ordering sensors and signal cable. Provide manufacturer's certification of piezoelectric sensor, signal cable, and appurtenances. Furnish three copies manufacturer's installation and operating instructions 5 days before installation. Provide certification of operation after installation.

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